EFFECTS OF IFRS ADOPTION ON THE FINANCIAL STATEMENTS OF NIGERIAN LISTED ENTITIES: THE CASE OF OIL AND GAS COMPANIES

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CERTIFICATE

I, Masud Bala certify that this thesis submitted in partial fulfilment of the requirements for the award of Doctor of Philosophy (PhD) in the Dundee Business School, Abertay University is wholly my own work unless otherwise referenced or acknowledged. The document has not been submitted for qualifications at any other academic institution.

Masud Bala
September, 2015

Supervisor's Certification:

I hereby certify that the candidate has fulfilled the conditions of the Resolution and Regulations appropriate for the award of degree of PhD in the Dundee Business School, Abertay University and that the candidate is qualified to submit this thesis in application for that degree.

Professor Reza Kouhy
September, 2015

DEDICATION

This thesis is dedicated to the memory of my late father for his unflinching support and encouragement and my mother for her love and relentless prayers. Special dedication to my wife and children for their patience, love and support, and to my Supervisor, Professor Reza Kouhy for his continuous guidance and encouragement throughout this wonderful journey.

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ABSTRACT

On 28 July 2010, the Nigerian Federal Executive Council approved January 1, 2012 as the effective date for the convergence of Nigerian Statement of Accounting Standards (SAS) or Nigerian GAAP (NG-GAAP) with International Financial Reporting Standards (IFRS). By this pronouncement, all publicly listed companies and significant public interest entities in Nigeria were statutorily required to issue IFRS based financial statements for the year ended December, 2012.

This study investigates the impact of the adoption of IFRS on the financial statements of Nigerian listed Oil and Gas entities using six years of data which covers three years before and three years after IFRS adoption in Nigeria and other African countries. First, the study evaluates the impact of IFRS adoption on the Exploration and Evaluation (E&E) expenditures of listed Oil and Gas companies. Second, it examines the impact of IFRS adoption on the provision for decommissioning of Oil and Gas installations and environmental rehabilitation expenditures. Third, the study analyses the impact of the adoption of IFRS on the average daily Crude Oil production cost per Barrel. Fourth, it examines the extent to which the adoption and implementation of IFRS affects the Key Performance Indicators (KPIs) of listed Oil and Gas companies. The study further explores the impact of IFRS adoption on the contractual relationships between Nigerian Government and Oil and Gas companies in terms of Joint Ventures (JVs) and Production Sharing Contracts (PSCs) as it relates to taxes, royalties, bonuses and Profit Oil Split.

A Paired Samples t-test, Wilcoxon Signed Rank test and Gray's (Gray, 1980) Index of Conservatism analyses were conducted simultaneously where the accounting numbers, financial ratios and industry specific performance measures of GAAP and IFRS were computed and analysed and the significance of the differences of the mean, median and Conservatism Index values were compared before and after IFRS adoption. Questionnaires were then administered to the key stakeholders in the adoption and implementation of IFRS and the responses collated and analysed.

The results of the analyses reveal that most of the accounting numbers, financial ratios and industry specific performance measures examined changed significantly as a result of the transition from GAAP to IFRS. The E&E expenditures and the mean cost of Crude Oil production per barrel of Oil and Gas companies increased significantly. The GAAP values of inventories, GPM, ROA, Equity and TA were also significantly different from the IFRS values. However, the differences in the provision for decommissioning expenditures were not statistically significant. Gray's (Gray, 1980) Conservatism Index shows that Oil and Gas companies were more conservative under GAAP when compared to the IFRS regime.

The Questionnaire analyses reveal that IFRS based financial statements are of higher quality, easier to prepare and present to management and easier to compare among competitors across the Oil and Gas sector but slightly more difficult to audit compared to GAAP based financial statements.

To my knowledge, this is the first empirical research to investigate the impact of IFRS adoption on the financial statements of listed Oil and Gas companies**.** The study will therefore make an enormous contribution to academic literature and body of knowledge and void the existing knowledge gap regarding the impact and implications of IFRS adoption on the financial statements of Oil and Gas companies.

CHAPTER ONE:

INTRODUCTION

CHAPTER ONE: INTRODUCTION

1.1 : PREAMBLE

One of the most fundamental developments in financial reporting recently has been the introduction of the International Financial Reporting Standards (IFRS) (Dunne et al., 2008). The IFRS is a single set of high-quality, transparent and comprehensive financial reporting standards and interpretations, developed and maintained by the International Accounting Standards Board (IASB) so that corporations around the globe could employ them to produce their financial statements (Zeff, 2012). The aim of IFRS is to provide investors and other users of financial statements with the ability to compare the financial performance of publicly listed companies on a like-for-like basis with their international peers (IASB, 2015). Technically, IFRS is comprised of two series of standards – those explicitly called International Financial Reporting Standards (IFRS) and the older series of International Accounting Standards (IAS), and two series of Interpretations – those issued by the former Standing Interpretations Committee (SIC) and those issued by the existing International Financial Reporting Interpretations Committee (IFRIC) of the IASB.

The IASB is an independent, not-for-profit organisation that is funded by donations from corporations, associations, Central Banks, international organizations, international accounting firms, stock exchanges and levies on corporations by national securities regulators (IFRS, 2014). The objective of IASB is to ensure that IFRSs are applied on a globally consistent basis by developed, emerging and developing economies in the preparation and presentation of financial statements of their listed companies (Zeff, 2012).

Many of the standards forming part of IFRS are known by the older name of International Accounting Standards (IAS). IAS was issued between 1973 and 2001 by the International Accounting Standards Committee (IASC). On April 1, 2001, the IASB took over the responsibility for setting International Accounting Standards from the IASC and started issuing the new standards in the form of IFRS.

In response to the increased globalization of capital markets, there is a greater call for transparency, improved disclosure, and quality accounting practices worldwide (Assenso-Okofo et al., 2011). As capital becomes highly competitive global commodity, the ability to compete for this commodity requires countries, especially emerging economies, to strengthen their institutions and invigorate the reporting standards that govern their accounting and disclosure practices (Apergis, 2015). Having an international standard is especially important for large companies that have subsidiaries in different countries. Adopting a single set of world-wide standards will simplify accounting procedures by allowing a company to use one reporting language throughout (Apergis, 2015). A single set of accounting standards will also provide investors, financial analysts, auditors and other stakeholders with a cohesive view of finances for effective decision making (Assenso-Okofo et al., 2011).

As of July 2014, about 283 nations and reporting jurisdictions permit or require IFRS for domestic listed companies (PwC, 2014), with more countries expected to transition to IFRS by the end of 2017. The European Union (EU) regulation 1606/2012 requires companies incorporated in its 28 member states whose securities are listed on an EU-regulated stock exchange to prepare their consolidated financial statements in accordance with IFRS from January 2005. Australia, New Zealand and Israel have essentially adopted IFRS as their national standards. Brazil started using IFRS in 2010. Canada adopted IFRS, in full, in January 2011. Mexico requires adoption of IFRS for all listed entities starting in 2012.

In Japan, eligible listed companies have been permitted to use IFRS from 2010, as designated by the Financial Services Agency (FAS) of Japan in their consolidated financial statements on voluntary basis (Deloitte, 2009).

Proponents of IFRS as an international standard maintain that the cost of implementing IFRS could be offset by the potential for compliance to improve credit ratings (Paisey, 2008). In 2005 many companies in the EU where required to issue their financial statements based on the IFRS for the first time. Dunne et al. (2008) argued that move to IFRS for many listed companies in Europe and elsewhere has been the biggest change to corporate financial reporting of recent times. The process has not been without problems but the ultimate aim of the policy shift is increased comparability and international harmonisation of financial reporting.

In Nigeria, the Federal Executive Council (FEC) On 28 July 2010, approved January 1, 2012 as the effective date for the convergence of Nigerian Statement of Accounting Standards (SAS) or Nigerian GAAP (NG-GAAP) with the IFRS. The adoption of IFRS in Nigeria is aimed at promoting confidence in corporate reporting and governance in Nigeria (Adoption Roadmap Committee, 2010). The adoption is part of the Nigerian Governments' policy reforms aimed at propelling the country among the top twenty nations in the world with a projected GDP of about $900billion by the year 2020 (Vision 20:2020). According to the IFRS adoption roadmap (Adoption Roadmap, 2010), the transition from GAAP to IFRS is proposed in three phases over a three year period. In phase one, all public listed entities and significant public interest entities are expected to transit to IFRS by January 1, 2012. By this pronouncement, any entity that starts preparation for transiting would need to convert its closing balances at December 2010 to IFRS-based figures which then becomes the opening balances as at January 1, 2011 for IFRS-based financial statements as at December 31, 2011. This provides opening balances for January 1, 2012 which is the first IFRS full financial

statement as at December 31, 2012 (with 2011 as comparative year). This implies that all listed companies and significant public interest entities in Nigeria were statutorily required to issue IFRS based financial statements for the year ended December 31, 2012. In phase two of the transition timetable, all other public interest entities were expected to mandatorily adopt IFRS, for statutory purposes, by January 1, 2013. This implies that all other public interest entities in Nigeria were statutorily required to issue IFRS based financial statements for the year ended December 31, 2013. While in phase three, IFRS for SMEs shall mandatorily be adopted as at January 1, 2014. This means that all Small and Medium-sized Entities in Nigeria were statutorily required to issue IFRS based financial statements for the year ended December 31, 2014.

1.2 : CONTEXT AND SCENE SETTING

There is considerable divergence between the Nigerian Statement of Accounting Standards (SAS) and the International Financial Reporting Standards (IFRS) as noted by the Nigerian Accounting Standards Board (NASB, 2010). Given increased globalization and the increasing role Nigerian Companies play in the global market, the Nigerian Federal Executive Council deemed the best way to support the Nigerian economy and improve the international competitiveness of Nigerian businesses especially the Oil and Gas sector, was to align the SAS with the IFRS. Accordingly, Nigerian reporting entities were required to adopt these globally accepted, high-quality accounting standards by fully converging the Nigerian National Accounting Standards with the IFRS.

The eventual implementation of IFRS in the preparation and presentation of the financial statements of listed companies has created a knowledge gap among accounting professionals, policy makers, preparers of financial reports, educators, investors and the general public. The

major concern is the way in which the standards are applied in the preparation of the financial statements, the prospective changes and overall effects of the adoption of this policy on the financial statements of listed entities. While some of the IFRS provide similar guidance to their counterpart Nigerian GAAP, other standards provide a completely different and specific guidance in the recognition, measurement and classification of assets, liabilities, revenues and expenditures of the listed companies. However, some standards are of significant interest and provide guidance to extractive sector entities in the recognition, measurement and classification of their assets and liabilities. Some of the standards closely applicable to the Oil and Gas sector include; IFRS 6: *exploration for and evaluation of mineral resources*, IAS 16: *Property, plant and Equipment*, IAS 38: *Intangible assets*, IAS 31: *Interest in joint ventures*, IAS 36: *Impairment of assets* and IFRS 1: *First time adoption of International Financial Reporting Standards*. The application of these standards is most likely to affect the accounting numbers and performance measures of listed companies in the Oil and Gas sector.

1.3 : RESEARCH AIM AND OBJECTIVES

Recent trends in financial reporting have led to the proliferation of studies that examine the impact of accounting policy changes on the financial statements of listed entities. However, much of the research up to now has been theoretical and descriptive in nature. Moreover, far too little attention has been paid to the impact of the transition from GAAP to IFRS on the Oil and Gas sector. The aim of this research project has therefore been to try and empirically establish the impact of the adoption of IFRS on the financial statements of listed Oil and Gas companies. The study sets out to assess the impact of the adoption of IFRS on the KPIs of Oil and Gas companies in terms of their accounting numbers and financial ratios. The study will further investigate the impact of the transition from GAAP to IFRS on Oil and Gas industry specific performance measures like the Exploration and Evaluation (E&E), the

provision for Decommissioning of Oil and Gas installations and environmental rehabilitation expenditures and the impact of the adoption of IFRS on the Average Daily Crude Oil production cost per barrel of Oil and Gas companies. The study will then examine the impact of the transition from GAAP to IFRS on the contractual relationships between Oil and Gas companies and the Nigerian Government in terms of Joint Ventures (JVs) and Production Sharing Contracts (PSCs) as it relates to taxes, royalties, bonuses and Profit Oil Split. Finally the research will compare the GAAP and IFRS based financial statements in terms of quality, ease of preparation and presentation of the financial statements, ease of auditing the financial statements and ease of comparison of the financial statements among competitors across the Oil and Gas sector.

This research study aims to bridge the wide knowledge gap among researchers, accounting professionals, financial analysts and other stakeholders regarding the application and interpretation of IFRS and the overall effects of the adoption of the IFRS on the financial statements of listed Oil and Gas entities.

1.3.1: Research Questions

The extractive sectors are important engines of growth and development of the economy of majority of the African countries (SDI, 2015). In countries like Angola, Gabon and Equatorial Guinea, the Oil and Gas sector provides about 80% to 90% of exports and the majority of government receipts (African Economic Outlook, 2014; SDI, 2015). In Nigeria the Oil and Gas sector accounts for about 90% of the country's export receipts, 60% of tax revenue, 80% of fiscal revenue and about 15% of the GDP (KPMG, 2013; African Economic Outlook, 2014; SDI, 2015). Generally, the extractive sector is synonymous with generous rewards and significant return on investment. However, the sector is also embedded with high risks, extreme uncertainty in the discovery of commercial quantities of hydrocarbon

resources, decommissioning risks and many other associated risks in the exploitation for and evaluation of hydrocarbon resources.

The recent developments in financial reporting around the world compel many African countries to impose a compulsory application of IFRS in the preparation and presentation of the financial statements of listed Oil and Gas entities. Therefore, it is important to examine the impact of the transition from GAAP to IFRS on the financial statements of listed Oil and Gas companies. In order to undertake this study, the following six research questions were formulated.

Question 1. To what extent does the adoption and implementation of IFRS affect the Exploration and Evaluation (E&E) expenditures of listed Oil and Gas companies?

Question 2. Are there any significant changes in the provision for decommissioning of Oil and Gas installations and environmental rehabilitation expenditures of Oil and Gas companies before and after the adoption and implementation of IFRS?

Question 3. Does the adoption and implementation of IFRS have any significant impact on the Average Daily Crude Oil production cost per barrel of Oil and Gas companies?

Question 4. Are there any significant differences between the Key Performance Indicators (KPIs) of listed Oil and Gas companies before and after the adoption and implementation of IFRS?

Question 5. To what extent does the adoption and implementation of IFRS affect the contractual relationships between Oil and Gas companies and the Nigerian Government in terms of Joint Ventures (JVs) and Production Sharing Contract (PSCs) as it relates to taxes, royalties, bonuses and Profit Oil Split?

Question 6. To what extent does the adoption and implementation of IFRS affect the ease of preparation and presentation of Oil and Gas company financial statements, ease of audit of the financial statements, quality and comparability of the financial statements among competitors across the Oil and Gas sector?

1.3.2: Research Hypotheses

Although extensive research has been carried out to examine the impact of IFRS on the financial statements of listed entities, no single study exists that investigated the impact of the adoption of IFRS on the financial statements of listed Oil and Gas companies. It is on this basis that the above research questions were formulated and four null hypotheses developed for each questions on exploration and evaluation expenditures, decommissioning expenditures, average daily crude Oil production cost per barrel and KPIs of Oil and Gas companies. This is to enable the researcher to analyze both the Oil and Gas companies in Nigeria and other African countries. Therefore a total of 16 null hypotheses ($H_{o1} - H_{o16}$) will be developed and tested in order to adequately address the research questions 1 - 4 and void the existing knowledge gap in literature regarding the impact of IFRS adoption on the financial statements of listed Oil and Gas companies. To address the research questions 5 & 6 however, questionnaires will be administered to the key stakeholders in the adoption and implementation of IFRS and their views collated and analyzed. The results of the analyses will be presented and discussed in the subsequent chapters of this report.

1.4 : METHODOLOGY AND METHODS

Several studies have been conducted in recent years documenting the impact of accounting policy changes on the financial statements of listed companies. These studies apply variety of approaches from qualitative, quantitative to mixed method approaches in order to demonstrate the impact of accounting policy changes on the financial statements of listed entities.

A quantitative approach to empirical research will be adopted in this study which will involve the collection and analyses of both primary and secondary data. This type of research

will provide descriptive, interpretive and empirical data. By employing this mode of enquiry, this research study will attempt to illuminate the impact of the accounting policy shift not only on the accounting numbers and performance measures of Oil and Gas companies, but also on the quality, comparability, ease of preparation and presentation of the financial statements and ease of auditing the IFRS based financial statements compared to GAAP based financial statements.

In the secondary data statistical analysis, twelve (12) annual audited financial statements of Nigerian extractive sector listed companies and thirty five (35) annual audited financial statements of extractive sector listed companies from other African companies will be collected. The accounting numbers, financial ratios and other industry specific performance measures will be computed from these financial statements and analysed. The aim is to make the research more robust and to enable a comparison of the Nigerian extractive sector entities with entities from other African countries that adopted the IFRS. Based on this approach, the collected data from the financial statements will first be subjected to normality test where Kolmogorov-Smirnov (Kolmogorov, 1933) and Shapiro-Wilks (Shapiro and Wilk, 1965; Razali and Wah, 2011) tests for normality will be conducted. The significance of these tests is to ascertain whether the collected data are normally distributed or not. The most appropriate statistical analysis for a normally distributed data is the parametric analysis and non-parametric analysis for data that are not normally distributed. However, for the robustness of this research, both the parametric analysis that assume a Gaussian distribution of data and non-parametric analyses of data not normally distributed will be conducted. In the parametric analysis, a paired samples t-test will be conducted where the mean values of the accounting numbers and financial ratios of Nigerian and African listed Oil and Gas companies computed three years before IFRS adoption will be analysed and compared with the mean values of the accounting numbers and financial ratios computed three years after

IFRS adoption. The significance of the differences of the GAAP and IFRS mean values will then analysed and compared. While in the non-parametric analysis, the median values of the accounting numbers and financial ratios of Nigerian and African listed Oil and Gas companies computed three years before IFRS adoption will be analysed and compared with the median values computed three years after IFRS adoption. The significance of the differences of the GAAP and IFRS median values will then be analysed and compared using the SPSS statistical package. Moreover, a Gray's (1980) Index of Conservatism (CI) also called as Gray's (1980) Index of Comparability (Weetman et al., 1998) will be applied to compare the conservatism index of Oil and Gas companies under GAAP with the conservatism index of the companies under the IFRS. The CI analysis indicates the prudence of Oil and Gas companies in terms of recognition, measurement and classification of their assets, liabilities, revenues and expenditures before and after the adoption and implementation of IFRS.

In the primary data statistical analysis however, about 100 questionnaires will be administered to the key stakeholders in the adoption and implementation of IFRS in Nigeria. The target participants in this survey will include; Chief Executive Officers (CEOs) of Oil and Gas companies, Finance Directors, Accountants, auditors of Oil and Gas company financial statements, staff of accounting regulatory bodies, professional accountants, financial analysts other stakeholders in adoption and implementation of IFRS in Nigeria and the responses will be collated and analysed using SPSS descriptive statistics.

A triangulation of the results from the primary and secondary data statistical analyses will be used to test the developed hypotheses and address the formulated research questions. The overall structure of this research is depicted in figure 1.1 on page 18 of this report.

1.5 : RESEARCH CONTRIBUTION

Although extensive research has been carried out to investigate the impact of the transition from GAAP to IFRS on the financial statements of listed entities, no single study exists which adequately examines the impact of the transition from GAAP to IFRS on the financial statements of listed Oil and Gas companies. To my knowledge, this is the first empirical research to point out the effects of the adoption of IFRS on the Exploration and Evaluation expenditures of Oil and Gas companies, the impact of IFRS adoption on the average daily cost of Crude Oil production per barrel and the impact of IFRS adoption on the provision for decommissioning of Oil and Gas installations and environmental rehabilitation expenditures of oil and Gas companies. It is also the first empirical research to investigate the impact of IFRS adoption on the relationships between Oil and Gas companies and the Nigerian government in terms of JVs and PSCs as it relates to taxes, royalty payments, bonuses and Profit Oil Split. This study further investigates the impact of the adoption of IFRS on the ease of preparation and presentation of the financial statements, ease of auditing of IFRS based financial statements compared to GAAP based financial statements, quality and comparability of the financial statements among competitors across the Oil and Gas sector.

The research will therefore make substantial and significant contribution to academic literature and body of academic knowledge by voiding the existing knowledge gap in the literature regarding the impact and implications of IFRS adoption on the financial statements of listed Oil and Gas companies. The research is expected to make the following specific contributions.

The findings from this research will provide guidance to countries and Governments endowed with proven reserves of hydrocarbon resources on designing the appropriate

economic policies that would maximise the country's wealth through the establishment of favourable contractual relationships with Oil and Gas exploitation and production companies.

The findings could be used by Governments in budget and budgetary planning and provision with regards to forecasts on the average cost per barrel of crude Oil production and the anticipated expenditures in respect of exploration for and evaluation of mineral resources.

Financial analysts and investors will massively benefit from the research findings in making informed investment decisions in the Oil and Gas sector and other sectors taking into consideration the risk and reward potentials of the Oil and Gas sector.

Accounting regulatory bodies and other agencies like the Financial Reporting Council (FRC) of Nigeria could utilise the research findings to evaluate the effectiveness and flaws of the newly adopted IFRS on the performance measures of listed companies. The FRC could also utilise the findings from this research to design an appropriate monitoring, evaluation and impact assessment framework for the implementation of IFRS in Nigeria.

The research findings could also aid Oil and Gas companies in opting for either the FC or SE accounting methods to account for their E&E and other expenditures incurred in Oil and Gas exploration. Accounting sector personnel, auditors and other professionals in the accounting and finance sector will benefit immensely from this research from the comparisons of the similarities and differences of GAAP and IFRS standards and their application to account for E&E expenditures, Inventory valuation and impairment of Oil and Gas assets.

This research will serve as a base for researchers and other research enthusiasts by adopting and implementing the research methodology and design in conducting similar studies either in the Oil and Gas sector or in other sectors in the future.

The findings from this research enhance our understanding of the power tussle between Oil and Gas companies and their host Governments (Vines et al., 2009) on one hand and Oil and Gas companies and the International Accounting Standards Board (IASB) on the other. The research proffers solution and recommends strategies to be adopted in order to douse the tension between Oil and Gas companies and Nigerian government and improve their relationships.

1.6 : STRUCTURE OF THE THESIS

The overall structure of this study takes the form of seven chapters, including this introductory chapter. The introductory chapter provides a brief overview of the concept of IFRS. It then goes on to explain the transition of the International Accounting Standards Committee (IASC) to International Accounting Standards Board (IASB) and IAS to IFRS. The second part of the chapter moves on to discuss the background to the study and describes the research problems which lead to the formulation of the research questions and the development of the research hypotheses. The methodology and methods adopted in conducting the research and the contribution of the research to academic literature and body of knowledge were finally discussed.

Chapter two discusses the historical development of accounting, accounting practices and financial reporting around the world. The chapter discusses the cultural differences in various jurisdictions around the world and the impact of cultural values on accounting values and subsequently on accounting systems with reference to Hofstede's (1991) Cultural Dimension Model and Gray's (1988) Accounting Subcultural Values. The chapter then relates these cultural values and discusses their significance and influence on accounting and financial reporting practices in various jurisdictions around the world.

Chapter three reviews the literature regarding financial accounting and reporting in the Oil and Gas sector. The chapter discusses the various phases of Crude Oil and Gas exploitation and production, the Full Cost (FC) and Successful Efforts (SE) accounting methods used by Oil and Gas companies in the recognition, measurement and classification of expenditures incurred in the exploration and production of crude oil. The provisions of IFRS as issued by the IASB, NG-GAAP and FRS in the UK and their guidance regarding exploration and evaluation expenditures, decommissioning expenditures, impairment, Inventories etc. were compared in details in this chapter. The theoretical framework of the research was discussed with reference to Positive Accounting Theory, Decision Usefulness Theory and Power-Capture theory.

Chapter four describes and discusses the methodological approach to this research. The various applicable methods of data collection and analysis in accounting research were reviewed before narrowing down the research approach to a combination of the realist's ontology, positivist's epistemology, voluntarist's assumption about human nature and a nomothetic methodological framework. The concept of normality test, parametric and non-parametric and Gray's (Gray, 1980) Conservatism Index analyses were introduced and discussed in the context of the statistical analysis of the secondary. While the concept of validity and reliability analyses in terms of questionnaire design and administration were discussed under the framework of the primary data collection and analysis as appropriate.

Chapter five presents and discusses the statistical analyses of secondary data collected from 47 annual audited financial statements of Nigerian and African listed Oil and Gas companies. The chapter focused on four key themes that have been identified in the literature to significantly impact the financial statements of Oil and Gas companies on transition from GAAP to IFRS. Relevant statistical data on E&E expenditures, Decommissioning

Expenditures, Average Daily Crude Oil production cost per barrel and the Key Performance Indicators of Oil and Gas companies were collected, statistically analysed and the results of the analyses presented and discussed. The findings from this part of the thesis are used to test the developed hypotheses and address some of the formulated research questions.

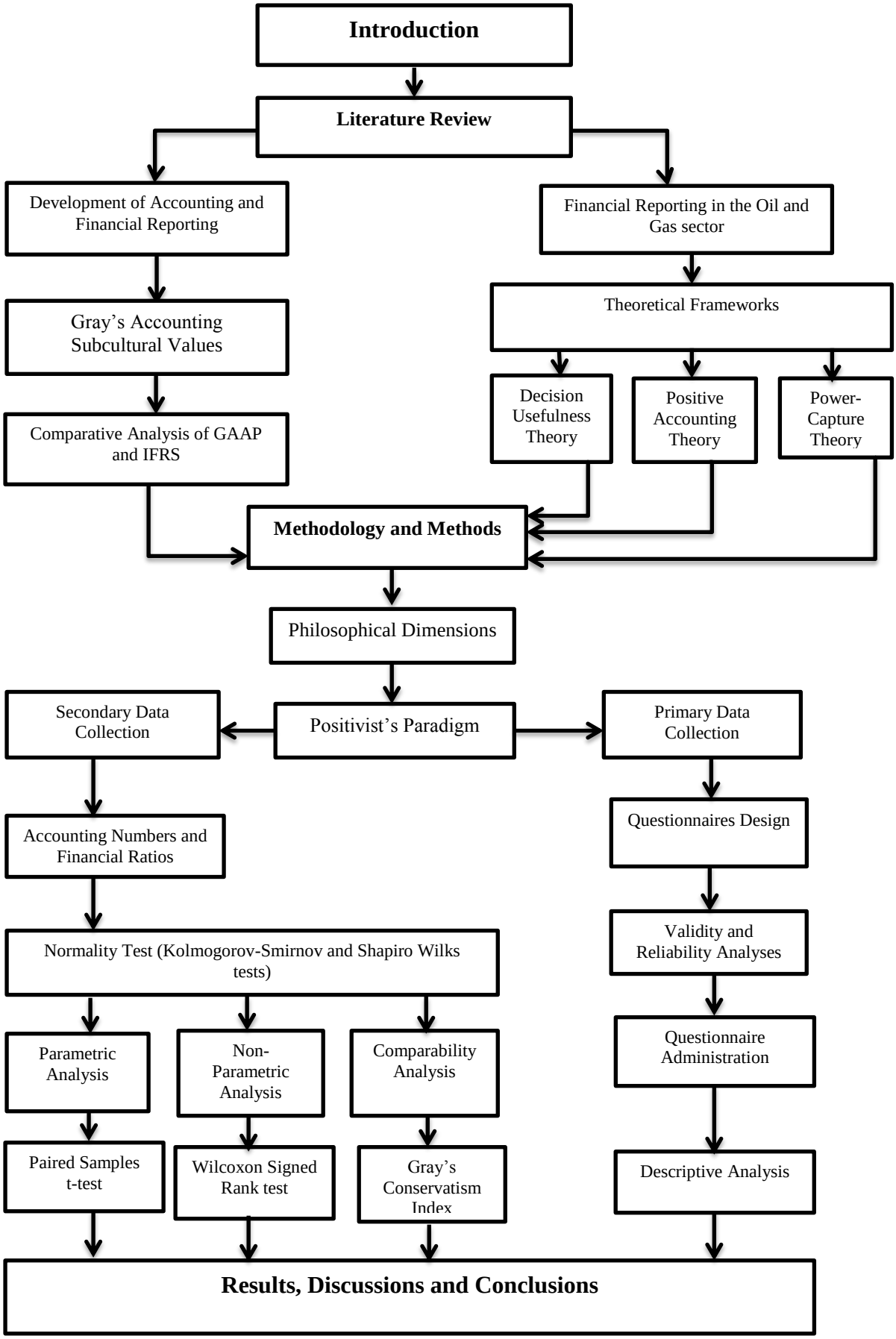
Chapter six follows on from the previous chapter on statistical analysis of secondary data. This chapter presents the responses obtained from the administered questionnaires to key stakeholders in the adoption and implementation of IFRS in the Oil and Gas sector. The chapter presents and discusses the analyses results and the findings that emerged from the analyses of the questionnaires in respect of contractual relationships between Oil and Gas companies and the Nigerian government, ease of preparation and presentation of IFRS financial statements, ease of audit of the financial statements and the quality and comparability of the financial statements among competitors across the Oil and Gas sector.

Chapter seven which is the final chapter draws upon the entire thesis, tying up the various philosophical, theoretical and empirical strands in order to justify the research. The chapter provides an overview of all the previous chapters with emphasis on the contribution of the research to academic literature and body of knowledge. This chapter also gives a brief summary and critique of the findings and includes a discussion of the implication of the findings to future research in the area of financial reporting in the Oil and Gas sector.

Finally the potential areas that need further investigation were identified and highlighted and adequate suggestions and recommendations made to future researchers on the potential impact of accounting policy changes on the financial statements of listed Oil and Gas companies in Nigeria and other African countries.

The next chapter will discuss the historical development of accounting and the impact of cultural practices on accounting systems with reference to Hofstede's (1980) Cultural Dimension Model and Gray's (1988) Accounting Subcultural Values. Figure 1.1 below depicts the systematic approach and structure of the research.

Figure 1.1: Structure of the Research



CHAPTER TWO:

DEVELOPMENT OF ACCOUNTING AND FINANCIAL REPORTING

CHAPTER TWO: DEVELOPMENT OF ACCOUNTING AND FINANCIAL REPORTING

2.1: INTRODUCTION:

The preceding chapter provided an introduction to the concept of GAAP and IFRS with reference to the IASC and IASB and their roles in the development and issuance of accounting standards. The chapter also discusses the research problems, the research aims and objectives and the formulated research questions that the study intends to address. A brief discussion of the methodology and methods of the research and the research contribution were also provided.

The present chapter is concerned with the historical development of accounting and financial reporting around the world with emphasis on Anglo American accounting systems, Germanic accounting systems, Latin accounting systems, Asian accounting systems and the accounting systems in some African countries.

In section 2.2 the international cultural differences and the influence of culture on accounting systems around the world are discussed with special reference to Hofstede's (1980, 1991), Cultural Dimension Model and Gray's (Gray, 1988) Accounting Subcultural Values. Section 2.3 presents comparative accounting practices around the world. The section also reviews the accounting practices in Europe, America, Asia and the African continents.

In section 2.4, the adoption and implementation of IFRS in the African continent will be discussed with reference to some regional accounting bodies. The origin of accounting practice in Nigeria from the colonial era to present is discussed in section 2.5, while in section 2.6 the adoption and implementation of IFRS in Nigeria is discussed with emphasis on the key stakeholders in the adoption and implementation of the accounting policy. A detailed comparative analysis of IFRS and NG-GAAP standards is presented in section 2.7.

Section 2.8 discusses the main challenges facing the adoption and implementation of IFRS in Nigeria. Finally section 2.9, concludes the chapter and provides a summary of the main segments of the chapter.

2.2: INTERNATIONAL CULTURAL DIFFERENCES AND ACCOUNTING SYSTEMS:

Culture is one concept that has been studied, researched and discussed by various theorists and academics for decades. It has been hypothesized that our cultural values and practices influence every aspect of our life, our attitudes and patterns of behaviours in the society in which we live. Culture is not genetically inherited and cannot exist on its own, but is always shared by members of the society (Hall, 1976). The most comprehensive, cross cultural and in-depth study of culture was conducted by a Dutch social Psychologist, Geert Hofstede in the early 1980s. Geert Hofstede was a former employee of a multinational corporation (IBM) and based his research project on the national cultural differences across subsidiaries of IBM. Hofstede's (1980, 1991) research was aimed at investigating the structural elements of culture especially which most strongly affect the known behaviour in work situation in organisations and institutions. Data was collected from the employees of IBM located in 64 countries and subjected the data to rigorous statistical analyses. One notable outcome of Hofstede's (1984) study was an understanding of the concept of culture itself.

Culture as defined by Hofstede (1984, 1991) "is a collective programming of the mind which distinguishes one group from another". It has also been defined by Mulholland (1991) as a set of shared and enduring meaning, values and beliefs that characterise national, ethnic or other groups and orient their behaviour. Other social researchers define culture as a continuous cumulative reservoir containing both material and non-material elements that are

socially transmitted from generation to generation (Adeyemi, et al., 2012). Culture in any setting contains the most basic values that an individual may hold. It affects the way individuals would like their society to be structured and how they interact with its subcultures (Nobes and Parker, 2004).

The result from Hofstede's (1980) research identified and validated four underlying independent societal value dimensions along which countries could be positioned. These dimensions were labelled Individualism, Power Distance, Uncertainty Avoidance, and Masculinity. The next section discusses the results of Hofstede's (1984) study based on the identified four dimension models of national cultural differences also known as Hofstede's Cultural Dimension Models (Hofstede, 1991).

2.2.1: Hofstede's Cultural Dimension Models:

Hofstede's (1991) research focused on ways of measuring national culture and how these 'measures' might work differently in different contexts. Hofstede (1980, 1991) argued that the way businesses are operated and organised in a country could be a reflection of the country's cultural values. In 1991, Geert Hofstede added Confucian Dynamism (Short versus Long Term Orientation) as the fifth cultural dimension model to the existing four cultural dimension models. Subsequently, different contexts have been used by researchers investigating the impact of cultural practices on accounting systems to interpret and use Hofstede's cultural dimensions (e.g. Gray, 1988; Perera and Baydoun, 2007). The Hofstede's (1991) five cultural dimension models in relation to cultural practices in Nigeria are briefly discussed below.

Individualism versus Collectivism:

This dimension addresses the degree of interdependence that a society maintains amongst individuals. Individualism is the preference for a loosely knit social framework where individuals are expected to look after themselves and their families. On the other hand, collectivism describes a society which prefers a tightly knit social framework where people are more concerned for others and the culture is based around more cohesive groups, such as the family as a whole. Hofstede (1991) rated Australia and Canada as countries with high scores in this dimension whereas Ecuador and Indonesia as examples of more collective societies. Nigeria could be classed as a collectivist's society going by the above analysis. Relationships between and among families in Nigeria is very closely knit. Families are interdependent of each other. Whatever affects one family, affects the whole society. Wedding ceremonies, naming, burial and other community gatherings are very common among Nigerian communities where families come together to either celebrate or share the sorrow with each other.

Large versus small Power Distance:

Power Distance measures the way inequalities in status are handled by members of a society. It concerns the extent to which less powerful members of organisations within a country expect and accept that power is distributed unequally. Low power distance cultures are the ones where people strive for power equalisation and there is concern to minimise the inequalities. Large Power Distance societies accept the established hierarchical order. Hofstede (1991) found Sweden and New Zealand as examples of low power distance cultures and found that Latin American and Latin European (France and Spain) as countries with

higher power distance scores[1]. The less powerful in these societies tend to look to those with power to make decisions, and inequalities within society are more acceptable. Nigeria is characteristically a large power distance society where large distance between ranks in an organisation exists and unequal distribution of power and wealth is tolerated. Employees have little or no direct access to their managers. There are chains of command and hierarchical huddles in both public and private sectors in communication or dissemination of internal information. However, the recent advancements in technology have narrowed the gap and ease of access between employees and managers. Emails and other forms of digital communication are now being used in both public and private sectors in Nigeria.

Strong versus weak Uncertainty Avoidance:

Uncertainty Avoidance describes the extent to which the members of a society feel comfortable with uncertainty and ambiguity. Strong Uncertainty Avoidance societies tend to have rigid codes of belief and behaviour and tend to be intolerant towards deviant persons and ideas. In these cultures, there is a fear of ambiguous situations, a preference for being busy and being precise and punctual. Hofstede (1991) found Latin American and Latin European countries, Japan and South Korea as countries with high uncertainty avoidance. In contrast, Weak Uncertainty Avoidance societies maintain a more relaxed atmosphere where pragmatism is more important than theoretical principle, and deviant behaviour is more acceptable. Hofstede (1991) suggested that Jamaica and Singapore were relatively low uncertainty avoidance cultures, where precision and punctuality are less important. Uncertainty Avoidance (UA) may be the most relevant of Hofstede's (1991) cultural values to explain the choice of IFRS over GAAP. Contracting parties in strong UA environments resolve information asymmetries by exchanging information privately, and financial

[1] *http://www.ehu.es/pswparod/pdf/articulos/Basabe1801.pdf*

disclosures tend to be lower (Gray, 1988; Salter, 1998). Salter and Niswander (1995) empirically tested Gray's (1988) model and found that societies with low UA, like Nigeria are less likely to have accounting systems that are dictated by prescriptive legal requirements, yet more open in reporting practice (financial disclosure driven by marketplace rather than by rigid accounting rules). It follows that countries with low UA may be more attracted to IFRS for similar reasons. A study conducted by Kim and David (2012), find a negative relationship between IFRS adoption and uncertainty avoidance.

Masculinity versus Femininity:

Masculinity addresses the way societies allocate social roles. A society is said to be Masculine if it attributes higher value to the characteristics of achievement, heroism, and assertiveness and material success. On the other hand, a society is said to be Feminine if it prefers 'nurturing' relationships, modesty, caring for the weak and quality of life. Hofstede's (1991) research suggested that Denmark and the Netherlands were more feminine cultures, while many other Western countries exhibited more masculine values. The USA was ranked fifteenth out of 53 nations on this masculinity score. Japan, the UK and West Germany also scored highly on masculine values.[2] Nigeria could be classified as a masculine culture based on the Hofstede's (1991) analysis. Material success is easily recognised as status symbol in Nigerian society. The wealthier the individual the more recognition he/she gets. Arguably however, the incessant struggle by individuals to amass wealth and be recognised in the society is the cause of the persistent corruption and other vices in Nigeria.

[2] *http://labspace.open.ac.uk/mod/resource/view.php?id=390145*

Short versus Long Term Orientation/Confusion-dynamism:

This dimension model is the latest addition to Hofstede's (1991) cultural dimension models. It refers to the way some societies take a short-term view of life while others go for a long-term outlook. Short Term Orientation cultures are characterised as having high regards for maintaining traditions, a greater respect for social and status obligations, does not rank savings as a priority and has expectation of quick results. A society with a Long Term Orientation is one which is willing to adapt traditions to be more in line with the modern world, only respect social and status obligations within limits would tend towards thriftiness and would exhibit perseverance for slow results. Short-termism, in Hofstede's (1991) analysis, involves a greater emphasis on quick results. Hofstede (1991) found that the USA tended towards short-termism, while the Netherlands was the most long-termist European nation, ranked tenth out of 23 countries surveyed. Nigeria could be characterised as long-termist based on the above analysis.

2.2.2: The Relationship between Culture and Accounting:

Based on Hofstde's (1980) cultural dimension models Gray (1988) argues that societal value orientations may be expected, in varying degrees, to permeate through to organisational and occupational subcultures. As such, he proposed that societal values can be expressed at the level of the accounting subculture. The accounting subculture according to Gray (1988) will in turn influence the accounting systems and the manner in which accounting is practised. In this sense, shared societal values within a country will influence the nature and structure of national accounting systems. Gray (1988: p.5) relates the values systems and societal values thus;

''the value system or attitudes of accountants may be expected to be related to and derived from societal values with specific reference to work related values. Accounting values will in turn impact on accounting systems''.

In his quest to further explore the relationships between culture and accounting systems in an international context, Gray (1988) identifies the mechanism by which values at the societal level are linked to the values at the accounting subcultural level. Gray (1988) argues that the values at the accounting subcultural level that are likely to directly influence the development of accounting systems in practice. Gray (1988) derives four accounting subcultural values as follows; Professionalism vs. Statutory Control, Uniformity vs. Flexibility, Conservatism vs. Optimism and Secrecy vs. Transparency and he linked these to Hofstede's cultural dimensions. The Gray's (1988) accounting subcultural values are discussed below.

2.2.3: Gray's Accounting Subcultural Values:

The accounting values of a country affect the accounting system and the cultural factors directly influence the development of accounting and financial reporting system at a country level (Doupnik & Salter, 1995). Accordingly, Gray (1988) hypothesised that Professionalism and Uniformity relate directly to authority and enforcement of accounting practice at a country level while conservatism and secrecy relate to the measurement and disclosure of accounting information at a country level as detailed below.

Professionalism versus Statutory Control:

Professionalism is a preference for the exercise of individual professional judgement and the maintenance of professional self-regulation. Statutory control on the other hand, is the preference for compliance with prescriptive legal requirements and statutory control

(Gray, 1988). Gray hypothesised that the higher a country ranks in terms of individualism and the lower it ranks in terms uncertainty avoidance and power distance, then the more likely it is to rank in terms of professionalism. The higher the degree of professionalism, the greater the degree of professional self-regulation and the lower the need for government intervention (Perera, 1989).

Uniformity versus Flexibility:

Uniformity is a preference for the enforcement of uniform accounting practices between companies and for the consistent use of those practices over time. Flexibility allows accounting practices to be in accordance with the perceived circumstances of individual companies, rather than to be set by predetermined, generally applicable rules (Gray, 1988). Gray (1988) hypothesised that the higher a country ranks in terms of uncertainty avoidance and power distance and the lower it ranks in terms of individualism, then the more likely it is to rank highly in terms of Uniformity. It has been argued by Perera (1989) that the higher the degree of uniformity the lower the extent of professional judgement and the stronger the force in applying accounting rules and procedures.

Conservatism versus Optimism:

Conservatism or prudence refers to the cautious approach to measurement, preferring the understatement of assets values, liabilities, revenues or expenditures to its overstatement. Optimism refers to the more optimistic, laissez-faire, risk-taking approach and a willingness to recognise uncertain future profits or overstate the assets values (Gray, 1988.p.8). The higher a country ranks in terms of Uncertainty Avoidance and the lower it ranks in terms of individualism and masculinity, then the more likely it is to rank highly in terms of conservatism. The higher the degree of conservatism the stronger the ties with traditional

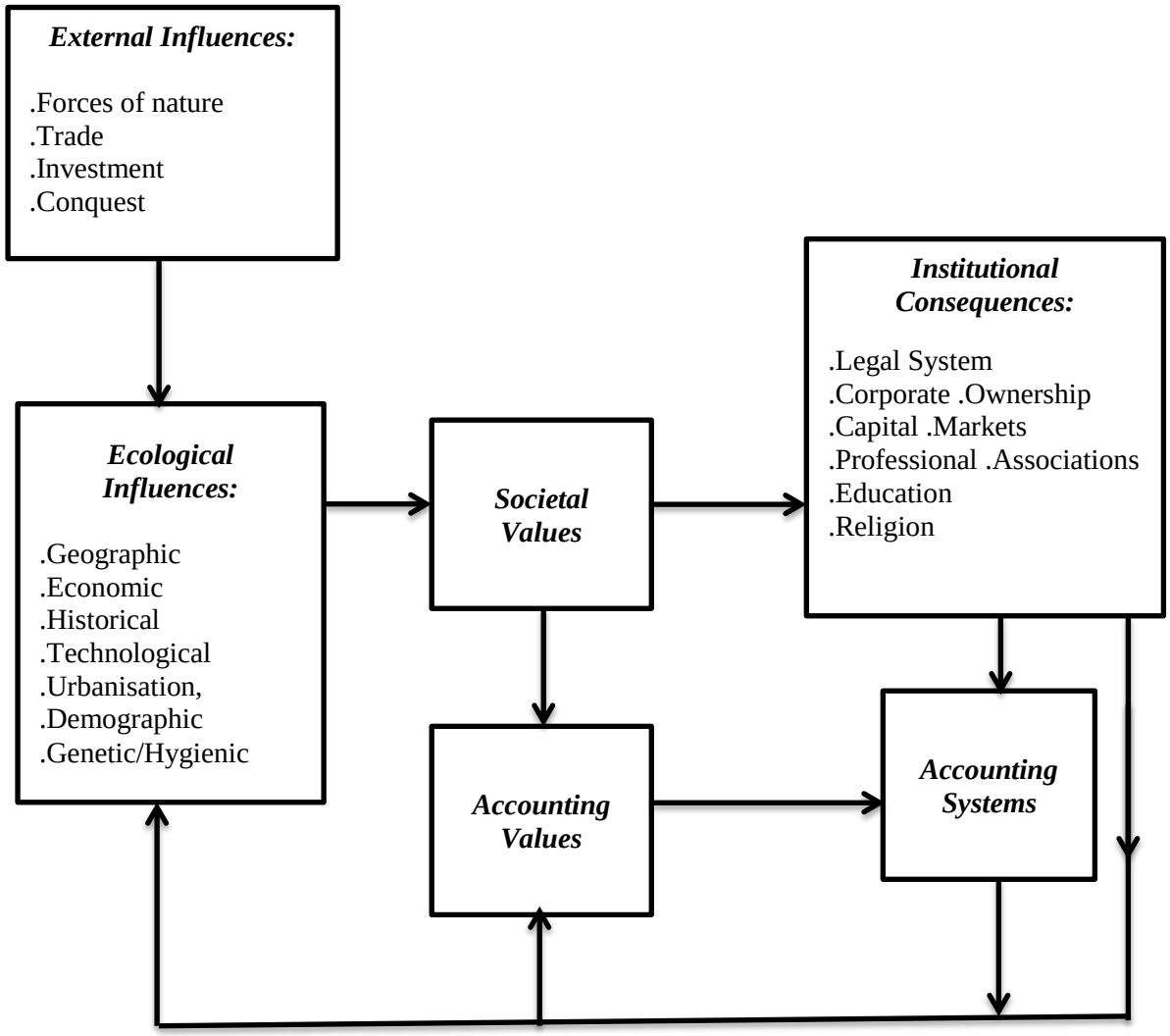
measurement practices. The conservatism index and optimism will impact on the investment opportunities and the relative exposures to risks and uncertainties of companies.

Secrecy versus Transparency:

Secrecy refers to the preference for confidentiality and the restriction of disclosure of information about the business only to those who are closely involved with its management and financing as opposed to a more transparent, open and publicly accountable approach (Gray, 1988.p.8).

Gray (1988) then distinguished the authority for and enforcement of accounting systems from the measurement and disclosure issues of accounting practice, linking the first two to the accounting subcultural values of professionalism and uniformity. Hence, by a direct application of Hofstede's theory as shown in figure 3.1 below, cultural values will affect accounting practices through the way institutions are organised and the processes that they use (Baydoun and Willett, 1995). Measurement of assets and profits, for example, would be influenced by the value of conservatism. The value of secrecy, on the other hand, would influence the nature and extent of disclosure practices. The higher a country ranks in terms of Uncertainty Avoidance and Power Distance and lower it ranks in terms of Individualism and Masculinity, then the more likely it is rank highly in terms of Secrecy (Gray, 1988). The degree of secrecy would influence the extent of the information disclosed in financial reports. The higher the degree of Secrecy the lower the extent of disclosure of financial information (Perera, 1989) and vice versa. The relationships between culture, societal values and accounting subcultural values are depicted in figure 2.1 below.

Figure 2.1: Culture, Societal Values and Accounting Values



Adopted from Gray (1988, p.7)

2.3: COMPARATIVE ACCOUNTING PRACTICES AROUND THE WORLD:

Accounting practices in various jurisdictions around the world such as the preparation of financial reports, the going concern concept, fair value orientation, historical costs concept and other accounting activities may appear to be the same or have lots of commonalities as they follow identical or similar standards. The flexibility offered by the regulatory framework in various jurisdictions allows listed companies to apply the US GAAP, UK GAAP or their local accounting standards in the preparation and presentation of their financial reports. However, in some jurisdictions strict compliance with the application of certain accounting standards is imposed on all listed entities in order to maintain uniformity and comparability of the financial reports.

Each country has its own set of acceptable accounting rules or regulations known as the Generally Accepted Accounting Principles (GAAP) in the domestic business community. While there may be significant similarities between and among countries' GAAP, each nation has the ability to impose its appropriate set of accounting rules on companies doing business within its borders according to its legal and regulatory frameworks (Finnigham, 2011). In some jurisdictions, listed entities are required to strictly comply with the local accounting regulations while others are flexible and allow companies to use either the local or international standards for their financial reporting as appropriate. Investors and creditors of a country will be able to understand their own accounting and reporting practices and will be able to use domestic financial statements to make sound business decisions (Athainos et al,. 2005) when investors or creditors wish to invest or lend internationally or when businesses seek capital from other countries, the differences in accounting policies can discourage or make these efforts nearly impossible (DeFond, et al., 2010). This is because the financial statements are prepared for different purposes in different jurisdictions. Based on these

differences however, the demand for a global adoption of uniform set of reporting standards has risen with many countries aligning their accounting standards with IFRS (Finningham, 2011) in order to increase the comparability of the financial statements and attract international investors (Madawaki, 2012).

A recent survey by IFRS foundation examined the profiles of 140 reporting jurisdictions around the world in June 2015. The result shows that about 114 (83%) of these jurisdictions require IFRS for all or most of their domestic publicly accountable entities (listed companies and financial institutions). According to this report, countries like Bermuda, Belize, Suriname, Cayman Islands, Egypt, Macao, Switzerland and Vietnam have not yet stated a commitment to the a single set of accounting standards. However, in Switzerland, 91% of companies listed on the Swiss Stock Exchange use IFRS as issued by the IASB. In jurisdictions like Bermuda, Cayman Islands, Guatemala, Honduras, India, Japan, Madagascar, Nicaragua, Panama, Paraguay and Suriname IFRS is permitted even though the countries have not made a formal commitment to IFRS. In Saudi Arabia and Uzbekistan, IFRS is only required for financial institutions but not for other listed companies. Thailand is in the process of adopting IFRS in full, while Indonesia is in the process of converging its national standards substantially (but not entirely) with IFRS. The report also reveals that Bolivia, China, Egypt, Guinea‑Bissau, Macao, Niger, United States and Vietnam use their national standards in the preparation and presentation of their financial statements. In China however, while the China's standards are not IFRS, they are substantially converged with IFRS.

Generally, the rationale for IFRS adoption by many jurisdictions is based on the perceived benefits in terms increased foreign capital flows and investments, decrease information asymmetry, lower agency and transaction costs, quality and comparability of the

financial reports and enhanced disclosure of financial statement items among others. Bushman and Piotroski (2006) reported that the compulsory adoption of IFRS lowers information asymmetry between managers and shareholders. As a result, company financial information was made more readily available to investors and other stakeholders on an equal footing. Healy and Palepu (1999) argue that IFRS adoption would lower information asymmetry and subsequently smooth the communication between managers, shareholders, lenders and other interested parties, resulting in lower agency cost. The comparative accounting practices around the world and the subsequent adoption and implementation of IFRS in some specific jurisdictions are discussed below.

The European Union:

The European Union (EU) is a community of 28 European Countries which was founded under the name European Economic Community (EEC) by signing of the treaty of Rome in March 1957 by Belgium, Germany, France, the Netherlands, Luxemburg and Italy (Toraman and Bayramoglu, 2005). The basis of the formation of the EU was the establishment of the European coal and steel community in 1951 to strengthen the coal and steel industry in order to cushion the effect of the Second World War (Berger, 2012). With the signing of this treaty, the member countries proposed a customs union that allows free movement of goods without paying customs tax. The objective of this treaty was not only to allow free trade between members, but also to encourage the formation of common policies in agriculture, transportation and competition, founding economic and financial unity and the formation of common foreign and security policies (Toraman and Bayramoglu, 2005).

The first expansion movement of the EEC occurred in 1973 with the accession of Britain, Denmark and Ireland (Toraman and Bayramoglu, 2005). Later accessions include

Greece in 1981, Spain and Portugal In 1986 when the number of members became 12. The number increased to 15 in 1995 with the accession of Austria, Finland and Sweden. From 1993 to 2009, the EEC was called European Commission (EC). The biggest expansion of the EC was in 2004 as membership agreements were signed with 10 new countries and the number of members reached 25. Bulgaria and Romania Joined the EC in 2007 bringing the membership number to 27. However, from 2009 to date EC was called the European Union (EU). Croatia has just joined the EU in July 2013 bringing the numbers to 28 while former Yugoslavia, Republic of Macedonia and Turkey are candidates for future membership of the EU.

In July 2002, the European Commission adopted Regulation (EC) No. 1606/2002 of the European Parliament and of the Council (Aubert and Grudnitski, 2011) that requires all EC listed companies to apply IFRS for their consolidated financial statements from January 2005 (Nobes and Parker, 2004). The commission's stated aim in adopting this regulation was to contribute to the cost-effective functioning of the capital market, reinforce the freedom of movement of capital in the internal market, and help EC firms compete on an equal footing for financial resources on the world's capital market. A famous financial Journalist, Robert Bruce was of the opinion that;

"The implementation in 2005 of International Financial Reporting Standards (IFRS) as the reporting language for all listed companies in the European Union and many others around the world has been the biggest revolution in the accounting world for a generation"
Robert Bruce (2009, P.3)[3]

Even though EC members have put all necessary structures in place for a smooth and successful transition to IFRS, a lot of problems were encountered in the process (Guggiola, 2010). The two most significant impediments anticipated in this process according to a

[3] *http://www.kpmg.com.au/Portals/0/IFRS%20Report%20v9.pdf*

survey conducted by Street and Gray, (2002) are the complicated nature of particular IFRS, including IFRS 9: *financial instruments* and standards detailing the operations in the extractive industries like IFRS 6: *Exploration for and evaluation of mineral resources* as well as the tax-orientation of many national accounting systems. Other barriers to convergence include underdeveloped national capital markets in most European countries, complication and insufficient guidance on first-time application of IFRS, and limited experience with certain types of transactions (Street and Gray, 2002).

Despite the widespread adoption and implementation of IFRS around the globe, there are still firms that maintain their local accounting standards or follow other accounting standards applicable in other countries. In countries such as the United States, Mexico, China, Malaysia, and Brazil, firms are not allowed to use IFRS in the preparation of their financial reports (Horton et al., 2010). In other countries, certain firms were exempt from IFRS adoption. For example, in the United Kingdom, companies listed in the Alternative Investment Market (AIM) were not subject to the EU International Accounting Standards (IAS) Regulation (Horton et al., 2010). However, AIM firms were required to submit financial statements prepared in line with IFRS for periods beginning on or after January 1, 2007 although voluntary adoption of IFRS was allowed (Barth et al., 2008). In Switzerland, non-multinational companies are not mandatorily required to comply with the IFRS regulation. These companies may continue to use Swiss GAAP, or they may choose IFRS or U.S. GAAP for their reporting since Switzerland is not a member of the EU (Horton et al, 2008). The Anglo-American accounting system with emphasis on the United Kingdom and United States of America is discussed in the next section.

2.3.1: Anglo American Accounting System:

The United Kingdom:

The Generally Accepted Accounting Policies in the UK (UK GAAP) as issued by the Financial Reporting Council (FRC) is the overall body of regulation establishing how company accounts must be prepared in the United Kingdom (ICAEW, 2010). The Companies Act 2006 is the principal legislation governing reporting in the UK, which also incorporates the requirements of European law (Cairns and Christopher, 2000). The Companies Act 2006/414A sets out certain minimum reporting requirement for companies to file their accounts with the registrar of companies who makes them available to the general public. The advent of EU Regulation 1606/2002 that requires all EU listed companies to report under IFRS from 2005 changed this framework (Cairns and Christopher, 2000). However according to this regulation, non-listed companies in the EU have the option to either report under IFRS or the UK GAAP. A comprehensive comparative analysis of UK and IFRS standards is provided in appendix 6.6 of this report.

The United States of America:

In the United States, each state has its own legislative body. However, the Securities and Exchange Commission (SEC) has the extensive powers to control business activity and levy taxes within its own boundaries (Nobes & Parker, 2004). The setting up of companies and other issues like the distribution of profits to shareholders are controlled by state laws. The United States has no statutory requirements for accounting in a form that is comparable to the accounting sections of the companies Acts in the UK or similar regulation in the EU countries (Nobes & Parker, 2004).

It is the responsibility of the private sector to set accounting standards in the United States and other countries practicing under the English common law system. The SEC in the US has the ultimate authority to set US accounting and financial reporting standards for public listed Companies. The SEC has delegated this responsibility to the private sector led by the Financial Accounting Standards Board (FASB). The U.S. SEC has been in favour of a core set of accounting standards suitable for financial reporting in cross-border offerings since the 1990s. Since 2002, SEC has been supporting the efforts of the FASB and the IASB to develop a common set of high-quality global accounting standards. The movement towards IFRS in the United States gained momentum in 2002 with the Norwalk Agreement between FASB and IASB (Silliman, 2005). The aim of the agreement was to remove as many differences as possible between the IASB and FASB by 2005 (Nobes & Parker, 2004; Silliman, 2005). Since reaching the agreement, the Boards and their staff have been reviewing the existing commonalities and differences between U.S. GAAP and IFRS, monitoring and coordinating each other's agenda and working on a series of joint long-term and short-term convergence projects.

The main focus is how the overall economy would be affected, the costs involved in a transition to IFRS, and whether a global accounting standard will ultimately be more transparent and more valuable to investors and stakeholders. In 2006, the FASB and IASB collaborated on a memorandum of understanding (MOU) that outlined how the two organizations planned to approach the convergence of US GAAP and IFRS. In 2008, the SEC proposed a roadmap that will lay out a schedule and appropriate milestones for continuing progress toward acceptance of IFRS in the United States. In February 2010 the roadmap was revisited and the SEC staff released a statement outlining a work plan to evaluate the impact that IFRS would have on the U.S. financial reporting system. Some companies in the US are

required to report under IFRS in order to meet the reporting requirements of an international parent or investor company.

However, several US multinationals are losing patience with the failure of the SEC to make a decision on IFRS. As reported by Bruce (2011), more and more subsidiaries of US companies throughout the world are using IFRS for local reporting, while parent companies are using US GAAP. While the convergence of US GAAP and IFRS continues to be a high priority on the agendas of both the FASB and the IASB, there are still significant differences between them (E&Y, 2009). The US approach to accounting standards is more rules-based than that of other countries, due to the unique legal, regulatory, and enforcement systems. There is literally a rule for every transaction under the rule based, whereas IFRS are principles-based standards, which means there are broad, sweeping principles that allow or actually require the use of judgment (Nobes & Parker, 2004; Silliman, 2005).

2.3.2: Similarities and Differences between US-GAAP and IFRS:

United States Generally Accepted Accounting Principles or US-GAAPs are accounting rules developed and issued by the FASB in the United States of America. These standards are used for the preparation and presentation of financial statements by publicly traded and privately held companies, non-profit organizations and government establishments in the United States. IFRS however, is a set of accounting standards developed and issued by IASB to provide a global framework for how public companies prepare, present and disclose their financial information. Nobes & Parker (2004), highlighted three basic differences between the IFRS and the US GAAP; the principles vs. rules, the availability of option and the departures from historical cost.

However, effort is being made by the IASB and the FASB to align the contents of the IFRS and the US GAAP in order to resolve these key differences. The extent of the specific differences between IFRS and U.S. GAAP is shrinking. The American Institute of Certified Public Accountants (AICPA, 2011) has identified the following as the most notable differences between IFRS and the US-GAAP.

- IFRS does not permit last in first out (LIFO) as an inventory costing method, whereas companies have a choice of either LIFO or FIFO under US-GAAP.
- IFRS allows the revaluation of assets in certain circumstances.
- IFRS uses a single-step method for impairment write-downs rather than the two-step method used under U.S. GAAP, making write-downs more likely.
- IFRS requires capitalization of development costs, when certain criteria are met, whereas development costs are expensed under US GAAP

Notably, the greatest difference between IFRS and U.S. GAAP is that IFRS provides less overall detail and industry-specific guidance as compared to US-GAAP (AICPA, 2011) as depicted in appendix 6.7 of this report.

Australia:

Australia like the EU is among the growing number of reporting jurisdictions in the developed world to fully commit to the adoption and implementation of IFRS (Jones and Higgins, 2006). Australia's move to IFRS is motivated by the corporate reform program initiated by the Commonwealth Government under the auspices of the Corporate Law Economic Reform Program (CLERP) in March 1997. The first official mention of the government's plan to move Australia to IFRS came from CLERP No 1 Accounting Standards: Building International Opportunities for Australian Business (Jones and Higgins, 2006). In September 2002, the CLERP No 9 Corporate Disclosure; Strengthening the

Financial Reporting Framework was released and recommended that IFRS be adopted *en bloc* by the Australian Accounting Standards (AASB) by January 2005, in line with the EU's timetable. Momentum for the adoption of IFRS in Australia has also been galvanized by strong support for the proposal by key private sector regulators, such as the Australian Stock Exchange (ASX) and by the Financial Reporting Council (Jones and Higgins, 2006).

The Australian Accounting Standards Board (AASB) has issued Australian equivalents to IFRS (A-IFRS), numbering IFRS standards as AASB 1-8 and IAS standards as AASB 101–141. Australian equivalents to Standing Interpretation Committee (SIC) and International Financial Reporting Interpretation Committee (IFRIC) Interpretations have also been issued, along with a number of 'domestic' standards and interpretations (Shri, 2011). These pronouncements replaced previous Australian GAAP with effect from annual reporting periods beginning on or after 1, January 2005 (30, June 2006 was the first report prepared under IFRS-equivalent standards for June year ends).

2.3.3: Germanic Accounting System**:**

Germany:

The traditional German Accounting model is entirely different from IFRS which reflect Anglo-American accounting with a focus on the concept of a 'true and fair value' and which is largely driven by the extensive use of professional accountants' judgement (Heidhues & Patel, 2011). Germany followed the Continental European Accounting Model, where there is less exercise of professional accountants' judgements and greater focus on legal form and statutory control (Radebaugh and Gray 1993; Nobes and Parker 2004). Furthermore, the German accounting model has historically emphasized creditor protection and prudence in its conservative measurement approaches (Choi and Mueller 1992; Choi and

Meek, 2005; Radebaugh and Gray 1993; Nobes and Parker 2004). As such, the traditional German accounting model differs substantially from Anglo-American practices and standards, which set, however, the conceptual basis of IFRS (Wiley-VCH, 2007) and have reached an increasing dominance in determining the specificities of the current trend towards convergence (Heidhues & Patel, 2010).

The need for relevant reliable and comparable accounting information in the German capital market was fuelled by the increased capital needs of German companies (Heidhues & Patel, 2011). Disparities between financial reports consistent with U.S. GAAP and German standards harmed the credibility of German accounting principles in the international community and increased industry pressure on the German legislator (Radebaugh and Gray 1993). As a result, the 'Kapitalaufnahmeerleichterungsgesetz' (alleviation law regarding raising of capital) was enacted in 1988 to improve the competitiveness of German companies (Heidhues & Patel, 2011). This allowed groups headed by companies with listed shares to prepare consolidated statements according to IAS or U.S. GAAP (Radebaugh and Gray 1993). During 1998 and 2004, publicly listed German firms had the option to choose among three different accounting regimes in order to prepare their consolidated financial statements, German GAAP, IAS/IFRS and US GAAP (Heidhues & Patel, 2011).

A focal step towards international convergence was the EU regulation 1606/2002, which required capital-market orientated companies to prepare consolidated financial reports consistent with IFRS (Radebaugh and Gray 1993). This obligation became effective for reports of financial years beginning on or after the 1st of January 2005. As one of the EU member countries, Germany fully embraced IFRS and requires all listed companies to comply with the EU directives on IFRS adoption.

Switzerland:

Switzerland is not a member of the European Union therefore, is not subject to EU IAS Regulation or Accounting Directives, but is a member of the European Free Trade Association (EFTA). The EFTA was founded by Norway and Switzerland in 1960, Iceland joined EFTA in 1970 followed by Liechtenstein in 1991. The countries are members of EEA and have signed and established a Free Trade Agreement with the EU which removed trade restrictions and customs duties.

The accounting profession in Switzerland is undergoing some significant changes (McCathy et al., 2012). These changes, although occurring slowly, are evidenced by the rapid growth of the profession, as well as the reporting methods by Swiss companies. Much of this can be attributed to the increase in global competition for business and financial markets. With respect to reporting, the nature of financial information disclosure seems to be moving from being conservative and secretive in nature to being more open and in line with international accounting standards (Horton et al, 2008).

The accounting profession in Switzerland began developing its own standard setting process inspired by the FASB in the US. In 1984 the Foundation for Accounting and Reporting Recommendations, or FER (Fachkommission fur Empfehlungen zur Rechnungslegung) was established by the Swiss Institute of Certified Accountants and Tax Consultants (McCathy, et al., 2012). The Foundation overlooks an independent accounting standards board responsible for establishing accounting and reporting recommendations (ARR's). Compliance with ARR/FER is required by all companies. However, compliance with IFRSs ensures compliance with ARR/FER, and many large Swiss companies have, for a number of years, followed IASs/IFRSs. Starting with annual reports for 2005 and interim

reports for 2006, most Swiss companies whose equity shares are listed on the main board of the Swiss Exchange use IFRS in the preparation and presentation of their financial statements (IFRS Foundation Report, 2015). Swiss GAAP will not be permitted except for Swiss companies listed on the main board that are not multinational (that is, operate primarily in Switzerland) (Horton et al., 2010). Those companies may continue to use the Swiss GAAP, or they may choose IFRSs or US GAAP (Horton et al., 2010). Foreign listed companies may continue to use a national GAAP that the Exchange deems to be equivalent to IFRS or US GAAP.

2.3.4: Latin Accounting System:

France:

The French accounting law which is almost entirely regulated by the standard accounts format and some articles of commercial law has been subject to numerous reforms generated by the IFRS. Only listed companies are required to comply with the provision of the IFRS. The French Accounting Standard Setting Body (CNC) and French Accounting Regulation Committee (CRC) are responsible for the issuance of French Accounting Standards (Degos & Ouvrard, 2008). As an active member of the EU, all listed companies in France are mandatorily required to comply with the EU regulation 1606/2002 and apply the IFRS in the preparation and presentation of their financial statements from January 2005. This regulation has made French companies to publish their consolidated financial statements in accordance with the IFRS rather than the French accounting standards.

Italy:

As an EU country, all companies listed on the Italian Stock Exchange are obliged to mandatorily prepare and present their financial reports according to the IFRS in compliance with the EU regulation 1606/2002 from January 2005. It is however optional for quoted

companies to adopt IAS/IFRS for their 2005 financial year but mandatory as from 2006 financial year (Jermikowicz, 2006). The Italian Government approved the legislative decree 58/2005 to implement the options allowed by EU regulation 1606/2002 (Cordazzo, 2007). Beginning from the year 2005, Italian listed companies, banks and financial institutions must prepare their interim and annual consolidated financial statements in accordance with IAS/IFRS. The main accounting differences between IAS/IFRS and the Italian accounting standards as identified by *Organismo Italiano di Contabilità* – OIC (Italian Accounting Body) is in fair value reporting, depreciation and amortisation, leasing, segment reporting, revenue recognition, impairment tests, deferred taxes and post retirement employee benefits (OIC, 2005).

Brazil:

The Brazilian accounting system was initially developed under the influence of European countries, especially Italy and later the United States. The accounting system in Brazil is strongly influenced by the country's tax legislation, the corporate laws and other rules established by government agencies like the Brazil Central Bank (BRACEN), Brazil Securities Commission (*Comissão de Valores Mobiliários* - CVM), *the Instituto dos Auditores Independentes do Brasil* (IBRACON) the Superintendence of Private Insurance (SUSEP), the National Telecommunications (ANATEL) and the secretariat for compulsory pension fund (UNCTAD, 2006). The BRACEN in 2006 announced that all financial institutions under its supervision will be required to prepare their consolidated financial statements according to the IFRS effective 2010. All companies listed on the Sao Paulo Stock Exchange (BOVESPA) are required to provide financial statements prepared in accordance with the IFRS or the US GAAP in addition to those prepared under the Brazilian Accounting Standards.

Despite the pronouncement and the commitment of the Brazilian authorities in converging their accounting standards with the IFRS, there are practical and operational obstacles preventing full convergence as identified by Carvalho and Bruno (2013). The legal and economic environments, tax legislation, cultural and educational issues, are the major obstacles in the path of full convergence of Brazilian accounting standards with IFRS (Carvalho and Bruno, 2013). Economic and tax issues particularly affect the process of convergence of Brazilian accounting standards to IFRS, because in Brazil the accounting system is strongly tied to tax laws and regulations that establish rules for recognition, measurement and disclosure of business transactions (UNCTAD, 2006).

2.3.5: Asian Accounting System:

Many firms in developing countries in Asia may be reluctant to make the resource commitment needed to maintain high quality financial information reporting. Maintaining high quality financial information reporting is strenuous on time and resources, involving long term high costs and the deployment of highly educated human capital such as accountants and lawyers (Bushman & Piotroski, 2006). Firms also lack proper incentives to improve the quality of financial information reporting, because murky accounting practices make it easier to tamper with accounting information to evade tax obligations, a common practice among Asian firms (Wu, 2005). In addition, the manipulation of accounting information is not only tolerated, but also implicitly encouraged by predatory governmental officials because it leaves the door wide open for extortion (Wu, 2005). China and India are the most prominent countries in the Asian region with diverse accounting practices. The development of accounting practices in China and India, and their relationship with western countries' accounting systems are discussed below.

China:

According to the United Nations Report of 2014, China has the world's largest population with over a quarter of the world's population living in China (UN, 2014). The country's market-oriented reforms have recently helped generate rapid economic growth. In the late 1970s, Chinese leaders began to move the economy from Soviet-style central planning to one that is more market-oriented but still under Communist Party control. China installed a highly centralized planned economy, reflecting Marxist principles and patterned after that of the Soviet Union (Hilmy, 1999). The state controlled the ownership, the right to use, and the distribution of all means of production, and enacted rigid planning and control over the economy (Hilmy, 1999). Production was the top priority of state-owned enterprises. Their sales and pricing were dictated by the State's planning authorities, and their financing and product costing were administered by the state's finance departments. Under this system, the purpose of accounting was to serve the needs of the state for economic planning and control.

China's economy could be described as a hybrid economy (Wu, 2008) in which the state controls strategic commodities and industries, while other industries, including the commercial and private sectors, are governed by a market-oriented system (Hilmy, 1999). In recent times, China engaged in drastic economic reforms which involve the privatizations and conversion of state-owned enterprises into share-issuing corporations. New accounting rules were developed for newly privatized companies and other independent limited liability companies. Generally, the accounting systems and regulations in China were designed for a planned economy (Paisey, 2008). The role of the government has been changing from managing both the macro and micro economy to one managing at the macro level only.

The China Securities Regulatory Commission (CSRC) regulates China's two stock exchanges: Shanghai, which opened in 1990, and Shenzhen, which opened in 1991. It sets regulatory guidelines, formulates and enforces market rules, and authorizes initial public offers and new shares. The China Accounting Standards Committee (CASC) was established in 1998 as the authoritative body within the Ministry of Finance responsible for developing accounting standards.

In response to emerging stock markets in China and increasing demand from foreign direct investors, the Chinese Government conducted a series of accounting standards reforms in 1992, 1998 and 2001 with the aim of converging Chinese GAAP with IFRS (Jean and Peng, 2007). However, concerns have been raised in prior research over the applicability of IFRS to Chinese accounting practices (Xiang, 1998). The China standard setter issued Chinese Accounting Standards in 2006 (effective from January 1, 2007) and, in many ways, these standards are converged with IFRS. While there are still differences between CAS and IFRS, the Ministry of Finance has plans to further converge CAS with IFRS in the near future.

India:

The Accounting Standards Board (ASB) of India was constituted in April 1977 by the Institute of Chartered Accountants of India (ICAI) in recognition of the need to harmonize the country's diverse accounting policies and practice (Swamynathan and Sindhu, 2011; Srivastava and Bhutani, 2012). The Board is responsible for formulation of India's accounting standards while keeping in view the international development in the field of accounting (Bhargava & Shikha, 2013). While formulating standards, the ASB is required to take into consideration the applicable laws, customs and usages and business environment.

The ASB is also required to give due consideration to IASs issued by IASC and integrate them with the IAS to the extent possible while noting the conditions and practices prevailing in India (Swamynathan and Sindhu, 2011). It is also the role of the ASB to propagate the Accounting Standards and persuade the concerned parties to adopt them in the preparation and presentation of their financial statements (Shrivastava et al., 2015), to issue guidance notes on the Accounting Standards and give clarifications on issues arising from their usage (Srivastava and Bhutani, 2012). Finally the ASB is expected to periodically review the application of the Accounting Standards and advise the government on any irregularities (Swamynathan and Sindhu, 2011).

Companies listed in the India's National Stock Exchange (Nifty 50), Bombay Stock Exchange (Sensex 30), Companies whose stocks are listed outside India and Companies which are listed or not but which have their net worth exceeding Rs 1000 Crores are required to prepare and present their financial statements in accordance with IFRS beginning from 1st April 2011 (Swamynathan and Sindhu, 2011).

In the pursuance of its commitment given to the G-20, the Ministry of Corporate Affairs of India has carried out the convergence of Indian Accounting Standards with IFRS. Thirty Five Indian Accounting Standards have so far been converged with IFRS and henceforth called IND-AS (Swamynathan and Sindhu, 2011; Srivastava and Bhutani, 2012).

2.4: ACCOUNTING SYSTEMS IN THE AFRICAN CONTINENT:

Africa is a vast multicultural and multilingual continent (Ouane, 2003) consisting of over 55 countries and characterized by over 2000 languages (Ouane, 2003; Henriksen, 2015). The strengths and weaknesses of the continent's implementation of a common form of financial reporting through IFRSs and its institutional strengths and weaknesses vary

enormously from country to country, and region to region (Herbert et al., 2015). South Africa has been a financial reporting powerhouse with a very active and vibrant financial system. The Johannesburg Stock Exchange (JSE) in Johannesburg is highly regarded in Africa and around the world as an impetus in implementing the IFRS for SMEs unrivalled around the world (Chebaane and Othman, 2014). The countries of Eastern Africa are steadily moving towards IFRSs, and to the west, Ghana adopted the policy in 2007 while an economic giant, Nigeria, started IFRS implementation from January 2012. The adoption and implementation of IFRS in the African continent is however, faced with series of difficulties and challenges as noted by Jerry Mutonga.

"The number of qualified accountants in Francophone countries is so limited. It will take years to get to the technical capabilities required. Even with a simplified version of IFRS they will not be able to comply in the next 10 years. By 2020 they would struggle to comply."

Mutonga, J. African Dev. Bank (2012: P. 2)[4]

Most of the countries colonised by Britain tend to unreservedly copy and implement all policies adopted or recommended by their colonial masters. For example, Nigeria, Ghana, India, Botswana, South Africa, Pakistan and many other British colonies' decision to adopt the IFRS have been directly or indirectly influenced by their link with Britain. This influence could be in the form of trade relationships, investments or the significant presence of British companies and other investments in these countries.

Kenya, Uganda and Zambia are countries that are rapidly training accountants and are moving towards a critical mass (Coetzee and Schmulian, 2013). The enthusiasm to adopt IFRS in Africa is very much pronounced, however the building up of the critical mass of the means to successfully implement the policy and derive the long-term benefits that would follow is the main challenge (Ocansey and Enahoro, 2014). Due to the diverse multicultural

[4] *http://www.ifrs.org/Features/Documents/AfricaembracesIFRSs.pdf*

and multi ethnic nature of the African continent (Chebaane and Othman, 2014; Henriksen, 2015) various regional accounting bodies were formed responsible for providing guidance and accounting information to the various regions. Some countries however, have developed their own national accounting standards while others have opted to adopt the regionally accepted standards as well as the IASB standards (Chebaane and Othman, 2014).

The Economic and Monetary Union of West Africa (UEMOA), which represents Benin, Burkina Faso, Guinea Bissau, Ivory Coast, Mali, Niger, Senegal and Togo, is on the road to implementing the IFRS for SMEs and has the legal ability to enforce it. The UEMOA is planning to implement the IFRS for SMEs as law in those eight countries (Creighton, 2012). Most of the Francophone Countries North of the Sahara, like Benin Republic, Ivory Coast, Mali, Senegal, Togo and Guinea tend to retain their culture of sticking with French domestic accounting rules[5]. The Autorité des Normes Comptables (ANC) or the Accounting Standard Authority in France is responsible for the issuance of the French GAAP.

Another notable regional accounting body is the Eastern, Central and South African Federation of Accountants (ECSAFA) founded in Mauritius in 1989 that promotes the international recognition of accounting standards within the Eastern, Central and South African regions. The ECSAFA is consist of fifteen full time members from Botswana, Democratic Republic of Congo, Ethiopia, Kenya, Lesotho, Malawi, Mauritius, Namibia, South Africa, Swaziland, Tanzania, Uganda, Zambia, and Zimbabwe. The countries in the ECSAFA regions finally agreed to adopt international standards for accounting and auditing in 2000 (Mwaura and Nyaboga, 2009). This body is also convinced that the adoption of IFRS will significantly improve the accounting practices of the region and encourage the flow of foreign direct investment (Coetzee and Schmulian, 2013).

[5] *http://www.ifrs.org/Features/Pages/Africa-embraces-IFRSs.aspx*

The most notable regional body is the Economic Community of West African States (ECOWAS) that consists of Benin, Burkina Faso, Cape Verde, Cote d'Ivoire, The Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, and Togo. This body is responsible for the achievement of collective self-sufficiency for all its members by promoting international trade and integration in energy, telecommunication, agriculture and tourism. The association of accounting bodies in West Africa (ABWA) was created and charged with the responsibility of developing the accountancy profession in West Africa with the aim of improving governance, eliminating corruption, reduction of poverty and the enhancement of the living standards of the people of the West African region (Mwaura and Nyaboga, 2009). However, it is quite interesting to see that Africa as whole is considering adopting IFRS despite the chaotic nature of these standards on the international front and the apparent lack of justification given for the adoption (Coetzee and Schmulian, 2013). Many notable individuals and international organizations like the World Bank, the World Trade Organization, USAID and UNCTAD have all been arguing for the adoption of IFRS in less developed countries. Notable among advocates of IFRS adoption in emerging economies is Jeff Van Rooven, one of the trustees of IFRS foundation who stressed that;

"The world is converging, Africa needs to be part of this convergence. It is a learning curve for Africa and a learning curve for the world. It is important for us as a continent. We just have to be part of this convergence".

Jeff Van Rooyen (IFRS, 2011: p. 2)

In Africa, out of the 19 jurisdictions examined by the IFRS foundation, 15 jurisdictions (79%) require IFRS for their financial reporting. Generally, there are 55 countries in Africa out of which 40 presently require or permit IFRS (Ocansey and Enahoro, 2014). However, only 20 of these countries have fully adopted the policy and require all listed firms on their various Stock Exchanges to prepare and present their financial reports in

accordance with the IFRS (Ocansey & Enahoro, 2014). Countries where IFRS is required for all listed entities include; Nigeria, Algeria, Ghana, South Africa, Botswana, Namibia, Mauritius, Kenya, Tanzania, Sierra Leone, Malawi, Seychelles, Benin, Eritrea, Gambia, Zimbabwe, Somalia, Swaziland, Uganda, Zambia and Rwanda. African countries that have partially adopted the IFRS include Tunisia, Mozambique, Liberia, Madagascar, Seychelles and Morocco. While in countries like, Lesotho and Mali listed firms are permitted to either use IFRS, UK/US - GAAP or their local accounting standards in the preparation of their annual financial reports (Mwaura and Nyaboga, 2009).

Most of the accounting standards in the African continent are comparable and provide similar guidance in the recognition, classification and measurement of financial statement items. Ghanaian National Accounting Standards (GNAS) and the Nigerian Statement of Accounting Standards (SAS) have lots of commonalities (Ocansey & Enahoro, 2014). The two standards provide similar guidance and in some instances suffer the same deficiencies. Both Nigeria and Ghana belong to the same economic block, the Economic Community of West Africa States (ECOWAS) and are leading members of the Association of Accounting Bodies in West Africa (ABWA). The two countries are former colonies of Britain and are major trade partners. The GNAS and SAS provide similar guidance and suffer the same deficiencies (Ocansey and Enahoro, 2014). In both Nigeria and Ghana, there are no equivalent standards for IAS 38: *Intangible assets,* IAS 36: *Impairment of assets* and IFRS 1: *First time adoption of IFRS*. Prior to the adoption of IFRS, there was no substantive standard in Ghana used by Oil and Gas companies to account for the costs of Exploration and Evaluation of Oil and Gas resources, whereas in Nigeria, SAS 14 is applied by Oil and Gas companies to accounting for these expenditures. There is also no equivalent GNAS to IAS 37: *Provision, contingent liabilities and contingent assets,* whereas in Nigeria *SAS 23: Provision, contingent liabilities and contingent assets,* is applied to account for provision for

decommissioning of Oil and Gas installations. Both the GNAS and SAS are historical cost based unlike the IFRS that emphasise fair valuation.

In South Africa, most of the Generally Recognised Accounting Practices (GRAPs) provide similar guidance to the SAS in Nigeria and GNAS of Ghana (Coetzee and Schmulian, 2013). Specifically, GRAP 17: *Property, plant and equipment*, GRAP 8: *Interest in joint ventures* and GRAP 12: *Inventories* provide similar guidance as SAS 3: *Property, plant and equipment*, SAS 29: *Interest in joint ventures* and SAS 4: *On stock* respectively.

The adoption and implementation of IFRS by African countries has been welcome with mixed reactions. Policy makers, company executives, accountants, analysts and other stakeholders have all expressed their views regarding the perceived benefits, obstacles, timing and the appropriateness of the IFRS adoption in Africa. Most of the views expressed reservations regarding the capacity, the competency of professional accounting bodies, educational institutions, regulators and auditors as the main issues that pose a great threat to the adoption and implementation of IFRS in Africa (Ocansey and Enahoro, 2014; Chebaane and Othman, 2014). It has been argued that the ethical environment in Africa and the poorly trained manpower pose the greatest challenge to the adoption and implementation of IFRS (Ocansey and Enahoro, 2014). Consistently, World Bank Report of 2006 stresses that there was poor application of accounting standards in Botswana as a result of poor training of accountants and lack of oversight by the professional Accounting Institute. The accounting systems and the subsequent adoption and implementation of IFRS in Ghana, South Africa and Nigeria are discussed below.

Ghana:

The Republic of Ghana is located on the West Coast of Africa South of the Sahara with an approximate population of about 25 million (CIA World Fact Book, 2012). Ghana was formerly known as the Gold Coast, because of the abundance of Gold in that region of West Africa. The country became the first country in Sub-Saharan Africa to gain independence on 6 March 1957[6]. The British took control of the country in 1821, and the colonization continued until Ghana attained its independence in 1957 (Oheneba et al., 2009). The establishment of the Institute of Chartered Accountants of Ghana (ICAG) in 1963 by Act 170 of Parliament is seen as the foundation of formal accounting in Ghana (Ocansey and Enahoro, 2014). The Ghana National Accounting Standards Board (GNASB) was established by the ICAG to develop, adopt, and publish accounting standards and to promote their acceptance. In the light of the disparity and in order to eliminate the gap that exists between the national and the international standards, Ghana has moved away from just adaptation to adoption of IFRS, a process that started from January 2007. The transition from the use of Ghanaian Accounting Standards (GAS) to IFRS started with public companies, banks, and insurance companies. However, small and medium-sized private enterprises as well as government ministries, departments, and agencies in the public sector did not begin the adoption process until January 2009 (Ocansey and Enahoro, 2014). Some studies (Oheneba et al., 2009) have expressed reservations as to the capacity of accounting regulatory bodies in Ghana to effectively impose and monitor the complete implementation of IFRS.

South Africa:

The South African Accounting system has its roots from the British accounting system (Prather-Kinsey, 2006). South Africa is one of the colonies of Britain as such

[6] *http://news.bbc.co.uk/onthisday/hi/dates/stories/march/6/newsid_2515000/2515459.stm*

elementary audit functions in South Africa were performed by officials in British colonial service since the late eighteenth century (Verhoef, 2011, p.7).

The South African Institute of Chartered Accountant (SAICA) Council in South Africa decide to approve a proposal by the Accounting Practices Board (APB) to base South African accounting standards on the IASC standards since 1993 (Carnegie and Parker, 1996; Parker, 2005). The Accounting Practices Committee (APC) commenced a harmonisation and improvement project where all South African GAAP were converged with IASC standards (Verhoef, 2011). In January 2004, the executive management of SAICA made explicit provision for the adoption and use of IFRS by 2005. The Johannesburg Stock Exchange (JSE) concurrently revised its listing requirements to require all listed companies to comply with IFRS from 1 January, 2005. South African Statements of GAAP are entirely consistent with IFRS, although there may be a delay between issuance of an IFRS and the equivalent SA Statement of GAAP (Prather-Kinsey, 2006).

South Africa was the first country in the world to adopt IFRS for Small and Medium Sized Enterprises (SAICA, 2007; Verhoef, 2011). The convergence of South African GAAP to IFRS provided massive exposure to South African companies and subjected them to the international standards without any global benchmark. Verhoef (2011) affirms that the SA experience was used by EU countries as a learning experience, hence their transition to IFRS in 2005.

Nigeria:

Nigeria is the largest economy in Africa, with a nominal GDP of 568 Billion USD as of 2014, according to the World Bank (2014) and Nigerian National Bureau of Statistics (NBS, 2014). The World Bank Report of 2013, ranked Nigeria as the 26th biggest economy in

the World (World Bank, 2013). Nigeria is Africa's (South of the Sahara) largest Oil producer and ranked 14th in the world with an estimated population of about 179 Million (World Bank, 2014). The mission and vision of Nigeria are to be among the top 20 largest economies in the World with a GDP of over 900 Billion USD by the year 2020 (Vision 20:2020, Committee). The vision 20:2020 committee states that;

"By 2020, Nigeria will be one of the 20 largest economies in the world, able to consolidate its leadership role in Africa and establish itself as a significant player in the global economic and political arena."

Nigeria's Economic Transformation Blueprint (Vision 20:2020, 2009: P.3)

The development of accounting profession in any nation in particular and around the globe is a mixed effort of both accounting theoreticians and practicing accountants (Uche, 2007). In Nigeria the professional accounting bodies always complement the efforts of the Accounting Governing Bodies and lead the way in the regulation and standardization of issues relating to accounting practices (Salisu, 2011). The first indigenous professional accounting body in Nigeria is the Institute of Chartered Accountants of Nigeria (ICAN), which was established in 1965 by an act of parliament. ICAN is still responsible for the training and certification of professional accountants in Nigeria.

2.5: OVERVIEW OF ACCOUNTING PROFESSION IN NIGERIA:

It is widely believed that colonial inheritance and influence are the major explanatory factors for the general system of financial reporting in many countries outside Europe (Nobes and Parker, 2004; Prather-Kinsey, 2006). The institutionalization of accounting started in Britain, from where accounting was imported to Nigeria by the British Colonial masters (Baydoun and Willet 1995; Dandago, 2002). Specifically, Nigeria's company law has mirrored the company law of the United Kingdom without taking into cognisance the

country's economic, cultural and other factors (Uche, 2007). The accounting profession in Nigeria received a formal reckoning in the mid-1960's (Dandago, 2002). During that period, Nigerian accountants, mostly trained by professional accounting bodies like ACCA, ICAS, ICAEW, CIMA and CIPFA in the United Kingdom came together, and formed the Institute of Chartered Accountants of Nigeria (ICAN). ICAN is responsible for the training of accountants in Nigeria and fostering the development of the profession in the country (Madawaki, 2012). The Institute is also saddled with the responsibility of issuing out guidelines on the practice of accounting in Nigeria and participates in the regulation of general accounting practice (ICAN, 2013).

However in 1993, another professional accounting body, the Association of National Accountants of Nigeria (ANAN) was formed. ANAN is responsible for ensuring the best practices in the profession and also participates in the general regulation of accounting practice in Nigeria (ANAN, 2012). In their effort to impose superiority over one another, the two officially recognised professional accounting bodies in Nigeria often disagree on various issues relating to accounting policies and practice in the country. These disagreements mostly lead to inconsistencies in the interpretation of accounting standards and implementation of accounting policies.

2.6: IFRS ADOPTION AND IMPLEMENTATION IN NIGERIA:

The advent of globalization and Nigeria's fast growth in the global business community especially the Oil and Gas sector, has brought about substantial increase in the volume of cross border capital flows and growing number of FDIs (Chen et al., 2011; Prochazka, 2012). This development necessitates that regulators and operators in the Nigerian financial system take proactive steps to ensure the adoption of IFRS in line with global trend.

On 28 July 2010, the Nigerian Federal Executive Council (FEC) approved January 1, 2012 as the effective date for convergence of Nigerian Accounting Standards, also called the Statement of Accounting Standards (SAS) or Nigerian GAAP with the IFRS (Josiah, et al., 2013). The Council directed the Nigerian Accounting Standards Board (NASB), the Federal agency statutorily responsible for the development and issuance of SASs, to take further necessary actions to give effect to the Councils' approval. Accordingly, Nigerian reporting entities were required to adopt these globally accepted, high-quality accounting standards by fully converging the SASs with the IFRS by January 2012 (Ayuba, 2012)**.**

According to the IFRS Adoption Roadmap Committee (2010), Public Listed Entities and Significant Public Interest Entities were directed to adopt the IFRS by January 2012. All other Public Interest Entities were instructed to mandatorily adopt the IFRS for statutory purposes by January 2013. Small and Medium-sized Entities (SMEs) were mandated to adopt IFRS by January 2014. By this pronouncement, it implies that all listed companies and significant public interest entities in Nigeria were required to issue IFRS based financial statements for the year ended December 31, 2012. The IFRS roadmap adoption and implementation committee in Nigeria was fully behind the complete convergence of NG GAAP with the IFRS. The IFRS adoption roadmap committee was of the view that;

"It will be in the interest of the Nigerian economy for listed companies to adopt the globally accepted, high quality accounting standards, by fully converging Nigerian National Accounting Standards with International Financial Reporting Standards (IFRS) over the earliest possible transition period, given the increasing globalization of capital markets".

IFRS Adoption Roadmap Committee Report, (2010: p.10)

2.6.1: Key Stakeholders in the Adoption and Implementation of IFRS in Nigeria:

Nigeria has a fully regulated Accounting and Finance environment (Oraka, 2015). The Federal Government of Nigeria has in place various structures and bodies charged with

the responsibility of ensuring a smooth and effective monitoring, evaluation and operation of the economic and financial systems.

There are various stakeholders involved in the adoption and implementation of IFRS in Nigeria. Stakeholders as described by Ehijeagbon, (2010) are person or group of persons, Institutions or organizations, government bodies or establishments that use, deal with, or whose activities are related to or impacted upon, directly or indirectly by the preparation, auditing and financial accounting reporting standards of public liability companies.

The main stakeholders in the adoption and implementation of IFRS in Nigeria include the corporate stakeholders like the Financial Reporting Council, Nigerian Stock Exchange, Nigerian Securities and Exchange Commission, the Central Bank of Nigeria, Nigerian National Assembly, Banks and other Financial Institutions (BOFI), the professional Accounting bodies like ICAN and ANAN, tertiary Institutions like the Nigerian Universities and the newly formed IFRS academy. The individual stakeholders include the managers of corporations, finance directors, financial analysts, preparers of company financial statements, investors and other users of the financial statements. However, for the purpose of this research, only corporate bodies, government agencies and individuals directly associated with the adoption and implementation of IFRS in Nigeria in the Oil and Gas sector will be considered.

Institute of Chartered Accountants of Nigeria (ICAN):

The Nigerian Institute of Chartered Accountants (ICAN) was formed in November 1960, by a group of Nigerian accountants that were professionally trained in the UK and other parts of the world (Dandago, 2011). The Association was formed with the view to provide and maintain a high standard of accounting profession in Nigeria. The Association was granted official recognition by the Federal Government of Nigeria on 28th September

1965 with the name Institute of Chartered Accountants of Nigeria (ICAN), through an Act of parliament, Act No. 15 of September 1, 1965 (Afolabi and Krivogorsky, 2004). The mission of this body is to produce world-class Chartered Accountants, regulate and continually enhance their ethical standards and technical competence in the public interest (Dandago, 2011). ICAN is the only accountancy body in Nigeria recognised by the International Federation of Accountants (IFAC). As the foremost professional accounting body in the West African sub-region, ICAN initiated and contributed significantly to the formation of the Association of Accounting Bodies in West Africa (ABWA) in 1982. The Institute founded the Nigerian Accounting Standards Board (NASB) from 1982 until 1992 when it was taken over by the Federal Government of Nigeria. ICAN currently has representatives on the Board of NASB. As part of its responsiveness to the Nigerian people, the Institute makes representations to the government on annual budgets, rolling plans and other relevant economic issues (ICAN, 2012). The body regularly submits memoranda to the government on sensitive accounting issues to enhance policy formulation in the country. It also organizes awareness seminars on economic, tax and other accounting-related issues as part of the Institute's proactive efforts to create awareness and raise compliance levels of economic agents to universally accepted standards and statutory regulations.

ICAN has been actively involved in creating awareness by way of organising workshops, training and seminars to its members and the general public regarding the adoption and implementation of IFRS in Nigeria. The plot to weaken the monopoly of ICAN by another group of Nigerian accountants lead to the formation of the Association of National Accountants of Nigeria (ANAN) in 1979 (Dandago, 2011).

Association of National Accountants of Nigeria (ANAN):

The Association of National Accountants of Nigeria (ANAN) as mentioned earlier, was formed on 1st January 1979, incorporated on 28th September, 1983 and was finally chartered by Decree 76 of 1993 on 25th August, 1993. ANAN, is the only chartered professional accountancy body in Nigeria empowered by law to teach as well as examine all its students. Teaching and training of accounting is delivered through the Nigerian College of Accountancy which is the Training Arm of ANAN. The organization is responsible for advancing the science of Accountancy in Nigeria, determining the standards of knowledge and skill to be attained by persons seeking to become members of the accounting profession, and promoting the highest standards of competence, practice and conduct among members of the Profession.

Nigerian Accounting Standards Board / Financial Reporting Council of Nigeria:

The Nigerian Accounting Standards Board (NASB) was established on September 9, 1982. However, the Board was formally established by the National Assembly vide the Nigerian Accounting Standards Board Act, 2003. It is the only recognised independent body in Nigeria responsible for the development and issuance of Statements of Accounting Standards (SASs) or Nigerian GAAP, for users and preparers of financial statements, investors, commercial enterprises and regulatory agencies of government. The functions of the NASB is similar to those of other National Accounting Standard Setting bodies like the Financial Accounting Standards Board (FASB) in the USA; Accounting Standards Board of UK; Australian Accounting Research Foundation (AARF), Australia etc. (NASB, 2011).

The mandate of the NASB as stated in the NASB Act, 2003 are to develop and publish SAS to be observed in the preparation of financial statements, taking into cognizance Nigeria's peculiar business environments, customs, laws, culture and economic

developments. It is also responsible for the promotion, general acceptance and adoption of such standards by preparers (Company accountant, Directors and external auditors) and users of the financial statements (Shareholders, investors and the general public). NASB also promotes and enforces compliance with the standards developed or reviewed by the Board. It is also the duty of the NASB to, from time to time; review the accounting standards developed, in line with the prevalent social economic and political environment in Nigeria. Since its establishment, the NASB has issued thirty (30) accounting standards so far. Some of these accounting standards and their guidance are discussed in the next section.

However, the provisions of the NASB Act of 2003 were grossly inadequate to meet the current challenges and developments in the Nigeria's accounting and finance environment. The NASB was facing lots of difficulties from inadequate funding to lack of adequate manpower, technical ability and qualified staff to meet the challenges of IFRS adoption in terms of monitoring and enforcement of the new standards. These lead to the abolishment of the NASB act No. 22, 2003 and the enactment of Financial Reporting Council (FRC) of Nigeria Act, No. 6, 2011 in the Federal Republic of Nigeria Official Gazette No 54, Vol. 98. The aim of this legislation among other things was to create develop and publish accounting and financial reporting standards to be observed in the preparation of financial statements of public entities in Nigeria, create an enabling environment for the implementation of the IFRS and guarantee credible financial reporting regime in both public and private sector entities in Nigeria (FRC, 2011).

Nigerian Stock Exchange:

The Nigerian Stock Exchange (NSE) was established in 1960 as the Lagos Stock Exchange. It started operations in 1961 with 19 securities listed for trading. In December 1977 it became known as The Nigerian Stock Exchange, with branches established in some

of the major commercial cities of the country. It is the second largest financial centre in sub-Saharan Africa after Johannesburg Stock Exchange (JSE). The NSE is licensed under the Investments and Securities Act (ISA) and is regulated by the Securities and Exchange Commission (SEC). The Exchange is a full member and executive committee member of the African Securities Exchanges Association (ASEA) and an affiliate member of the World Federation of Exchanges (WFE). The NSE is an automated exchange and provides listing and trading services, as well as electronic Clearing, Settlement and Delivery (CSD) services through Central Securities Clearing System (CSCS) Ltd., an associate company to the NSE, which also offers custodian services. Along with securities listing and trading services, the Exchange offers market data dissemination services, market indices and many other services (NSE, 2015).

A key policy strategy in repositioning the Nigerian economy is the attraction of Foreign Direct Investments (FDIs) into the economy to provide investible funds. The exchange reported a decline in FDIs in Nigeria from US$6.9 billion in 2007 to about US$4.602 billion in 2008 and US$3.94 billion as at September 30, 2009 which it attributed primarily to the perceptions of risk in Nigeria (NSE, 2013)[7]. In order to encourage FDI into Nigeria, the government has abolished legislation preventing the flow of foreign capital into the country (NSE, 2013). This has allowed foreign brokers to enlist as dealers on the Nigerian Stock Exchange, and investors of any nationality are free to invest. Nigerian companies are also allowed multiple and cross border listings on foreign markets.

As far as the flow of FDI is concerned, the NSE is the most trusted source of information regarding the affairs of blue chip and other corporate entities. The NSE is

[7] *http://www.nse.com.ng/MarketNews/CEOs%20Presentation/NSE%202012%20Market%20Review_2013%20Outlook_Final.pdf*

playing a vital role in IFRS adoption in Nigeria by obliging existing and prospective investors with accurate, transparent and timely information regarding the stocks of Nigerian listed companies.

Nigerian Securities and Exchange Commission (SEC):

The Securities and Exchange Commission (SEC) is the apex regulator of the capital market in Nigeria. It was established by Section 1 of the Investments and Securities Act (ISA) No. 29 of 2007 (the most recent re-enactment of previous statutory regimes of capital market regulation that started with the Capital Issues Commission Decree of 1973). The objective of the SEC is to register and regulate investment and securities business in Nigeria as defined by the Act. It is the responsibility of the SEC to protect the integrity of the securities market against all forms of abuses including insider dealings and to intervene in the management and control of the capital market operators (Udora, 2010). In furtherance of its role of protecting the integrity of the securities market, SEC may seek judicial orders to freeze the assets of any person whose assets were derived from the violation of this Act; or any securities law or regulation in Nigeria or other jurisdictions. The SEC is charged with the responsibility of overseeing the affairs of the NSE. The aim is to enhance the integrity of NSE and assure foreign investors of the security of their investments in Nigeria.

Central Bank of Nigeria (CBN):

The Central Bank of Nigeria (CBN) was established in 1958 and commenced full operation in 1959. The CBN is a fully autonomous body vested with the responsibility of designing appropriate monetary policies, regulation and supervision of Banks and other financial institutions, ensuring monetary and price stability as well as rendering economic advice to the Federal Government. The CBN is one of the key players in the adoption and

implementation of IFRS in Nigeria. It is actively involved in issuance of monetary and fiscal policies, organising various sensitization workshops and training of its staff and other public servants in order to face the challenges of IFRS adoption.

2.6.2: Factors Influencing IFRS Implementation in Nigeria:

The accounting systems and practices are considerably different from jurisdiction to jurisdiction (Robson, 1991) although, there is a thin line in the accounting systems of countries such as the United Kingdom and Ireland, or United States and Canada, (Roberts et al., 2002). The accounting practice of a country is influenced by a number of factors, ranging from ecological or environmental and institutional factors, governmental or political factors, legal, economic, tax, educational, financial systems, cultural and other social practices (Robson, 1991). It has been argued (Ali & Ahmed, 2007) that an efficient and effective institutional framework and a favourable socio-economic, legal and political climate improve the accounting and reporting practices of a country (Choi & Mueller, 1992; Ball & Brown, 2006). The factors that influence the development and practice of accounting profession in Nigeria, vis-à-vis the adoption and implementation of IFRS are discussed below.

Nigerian Economic System:

A Nigeria's economic policies together with the common law system, tax system, legal and regulatory frameworks greatly impact the country's business dealings (Doupnic & Salter, 1995). It has been argued by Cooke & Wallace, 1990; Nicholls & Ahmed, 1995 that there is a strong link between improved accounting and disclosure practice on one hand and economic development on the other. They argued that an improved accounting system creates a favourable business climate for domestic and foreign investments. This would then leads to economic growth, access to long-term financing, and the development of the securities

markets (ROSC, 2005). Nigeria has a well-structured macroeconomic system that encourages free flow of FDI. Many Multinational Corporations (MNCs) have significant presence in terms of investments in Nigeria. They consider the Nigerian economic system as very suitable for their businesses and a safe haven for their investments (EIA, 2010). All the big four accounting firms, major Oil and Gas Exploration and Production Companies and many other multinationals have massive investment portfolios in Nigeria. The continuous presence of Oil and Gas and other MNCs in the country has helped in the development of Nigeria's accounting practice and expose the Nigerian accounting and auditing personnel to the latest accounting and auditing innovations available around the world.

Nigerian Political System:

One country's accounting traditions can easily proliferate to other countries because of historical, political and social ties, such as through colonialism (Nobes and Parker, 2004; Gernon and Meek, 2001). Great Britain exported both its accounting system and its accountants to its former colonies like Nigeria (Baydoun and Willet, 1995). It has been observed that many countries outside Europe may have inherited their accounting systems through this route (Nobes and Parker, 2004). Historic political and social ties of colonialism are expected to affect a country's decision to adopt IFRS (Baydoun and Willet, 1995). Nigeria as a former colony of the United Kingdom has developed the SAS that are similar to the UK GAAP.

Nigeria obtained its independence from the British Colonial masters on 1st October 1960. Since then, there has been series of changes in the leadership mantle of the country, either by way of military coup d'état or through a democratically elected government. From independence to date, Nigeria has had fourteen Heads of Government out of which seven

were Military Head of States, Six were democratically elected Presidents and one was a Head of an Interim Government.

Most African countries have experienced uncertainty as a result of unstable economic and political systems, which inadvertently affected important economic policies. Nigeria's political instability has brought about distorted economic growth and inconsistencies in government policies. It has been established that the political system influences the business environment, the economy, and the accounting practices of a country (Archambault & Archambault, 2003; Goodrich, 1986). Existing and potential investors are very sensitive to the political situation in Nigeria and at times restrict or significantly shift their investments to other locations at times of instability. Expatriates and foreign workers of Oil and Gas companies and other MNCs depart the country en-masse when the Nigerian General election approaches because of the anticipated chaos and uncertainty.

The leadership pattern in Nigeria lacks the necessary focus capable of instilling national development and promoting political stability (Modugu et al., 2012). Rather, Nigerian leaders are preoccupied with their desires for the appropriation and privatization of the Nigerian state (Modugu et al., 2012). Systemic corruption and low levels of transparency and accountability have been major sources of development failure in Nigeria (NPC, 2005). Unconventional and fraudulent trade, misappropriation or diversion of funds, election rigging and other malfeasant practices, are the forms that corruption takes in Nigeria. In the international scene, Nigeria was rated as one of the most corrupt nations of the world according to Transparency International Report of 2011, a ranking that has denied the country its pride of place in the international economic system (Transparency International, 2011).

However, the stable, democratic political system in place in Nigeria since 1999 and the latest success in the conduct of peaceful and transparent election in 2015 has led to

significant improvements in the country's accounting environment, political stability and improved economic ranking and respect among developing countries.

The Education System:

The aim of the national education system in Nigeria according to a UNESCO Report of 2010 was to inculcate national consciousness and national unity as well as core types of values and attitudes for the survival of the individual and the Nigerian society. Successful development therefore, entails more than investing in physical capital, or closing the gap in capital. It also entails acquiring and using knowledge as well as closing the gaps in knowledge as shown in World Bank Report of 2011 (World Bank 2011, p. 18). Thus, to successfully confront the challenges of development, Nigeria must adapt global knowledge and create knowledge locally, invest in human capital and invest in latest technologies to facilitate both acquisition and the absorption of knowledge.

Unfortunately, Education in Nigeria is invaded by myriads of problems like; poor funding and thus poor educational infrastructures, inadequate classrooms and teaching aids (projectors, Computers, Laboratories and libraries), dearth of quality teachers and poor/polluted learning environment to mention a few. In addition to these inadequacies, Nigerian school system is plagued with numerous social vices such as examination malpractices, cultism and hooliganism (Odia and Omofunwan, 2007). These eventually lead to the Universities producing low quality graduates in various fields including the accountancy profession.

The National Policy on Education was launched in 1977 with reviews in 1981, 1988 and 2004 with the primary objectives of improving the standards and quality of education in Nigeria. The orientation of the policy is geared towards self-realization, individual and

national efficiency, national unity etc. aimed at achieving social, cultural, economic, political, scientific and technological development (Amaghionyeodiwe et al., 2006).

The accountancy profession is a crucial institution for the development of accounting, financial reporting, and auditing practices (Ali & Ahmed, 2007). High quality education and training are instrumental in the development of the accountancy profession (Doupnik & Salter, 1995). A high level of professional education leads to better understanding and practices of accounting standards.

The quality of accounting education in Nigeria customarily depends on the country's recognised professional institutions like ICAN, ANAN and the IFRS Academy that was established recently to provide specialised accounting education. The ICAN ensures that professionals acquire the appropriate education and practical experience to a certain standard in order to be qualified as a practicing accountant or auditor. An individual must pass the ICAN exams or obtain an equivalent recognised foreign qualification from the ACCA, CIMA, AICPA, ICAS, or the ICAEW to be considered as a professional accountant in Nigeria.

Despite having well established professional accounting and auditing bodies and abundance of professional accountants and accounting firms, Nigeria's accounting system is riddled with numerous challenges. Most notable and unfortunate among these challenges is the conflict of interest between ICAN, ANAN and the Chartered Institute of Taxation of Nigeria (CITN). Other noticeable problems include incessant corruption, undue interference with the preparation of financial reports, manipulation of the financial reports, double standards of auditors and many other issues. Some companies in Nigeria delay the publication of their annual reports to enable them manipulate the figures to suit specific purposes and cause unnecessary audit lag (Angahar, 2012; Modugu et al., 2012). These

problems coupled with the lack of appropriate checking and monitoring frameworks makes it easy for companies and other corporate bodies to manipulate their annual reports.

Nigerian Tax System:

According to the Chartered Institute of Taxation of Nigeria (CITN, 2010), the Nigerian Tax System is purely statutory. The tax system features a wide range of statutes by which the various governments in the country seek to charge and collect revenue for public expenditure. The taxation system in Nigeria dates back to 1904 with the introduction of the personal income tax in Northern Nigeria before the unification of the country by the British colonial masters (Fagbemi et al., 2010). The tax system was later implemented through the Native Revenue Ordinances to the western and eastern regions of the country in 1917 and 1928, respectively. Nigerian tax system has been based on 1948 British tax laws and has been undergoing a lot of improvements since then. Among other amendments in the 1930s, it was incorporated into Direct Taxation Ordinance No. 4 of 1940 (Library of Congress, 2008).

Liability to personal income tax does not depend on the domicile or nationality of the taxpayer (CITN, 2010). Profits arising from a trade, business, profession or vacation from any source inside or outside Nigeria are chargeable if the tax payer happens to be a resident in Nigeria. Foreign residents are also required to pay tax if they have income arising from a Nigerian source. Corporate bodies are charged to tax under the Companies Income Tax Act 1990. However, while Nigerian companies are taxed on their worldwide income, foreign companies are liable only as regards the portion of their profit which is attributable to business operations carried on in Nigeria (CITN, 2010) In addition to the Company's tax, all incorporated companies are required to pay 2% of their assessable profit into the Education Tax Fund (ETF). This is charged by virtue of the Education Tax Decree of 1993.

Nigeria Ranks among the major Oil and Gas producing countries of the world and much of its public revenue is generated from the sale of Crude Oil and natural Gas[8]. All Petroleum resources belong to the federal government; hence Oil and Gas Exploration and Production Companies operating in Nigeria are charged tax under the Petroleum Profits Tax Act (PPTA) 2004.

The Nigerian tax system is undergoing series of vital improvements (Oyedele, 2012) especially with the introduction of the Federal Inland Revenue Service (FIRS), Establishment Act, 2007, Companies Income Tax (Amendment) Act, 2007 and the launching of the National Tax Policy (NTP) in 2012. The aims of these policy changes are to correct the problems plaguing the Nigeria's tax system that was hitherto very poor and riddled with massive corruption and tax evasion and to institutionalise a tax culture amongst Nigerians[9]. However, despite these legislations, companies connive with officials of the Federal Inland Revenue Service (FIRS) to deprive the country of massive amount of tax revenue. Companies prepare different sets of financial statements for tax purposes, credit institutions, and the general public. This creates opportunities for accounting manipulation to suit each stakeholder (Nashui, 1984; Ashraf & Ghani, 2005). Such practices do not encourage quality disclosure and ultimately affects the credibility and reliability of company's financial reports. In majority of instances, tax authorities do not have proper record of sources and amount of revenues they generate in terms of taxes (Oyedele, 2012). Tax legislation influences accounting and disclosure as revenues and expenses are recorded for tax purposes (Oheneba

[8] *Nigeria Oil and Gas sector provides 95% of the country's foreign exchange earnings and about 80% of budgetary revenues – Nigeria Economic Profile (2013)*
http://www.indexmundi.com/nigeria/economy_profile.html
[9] *The National Tax Policy (NTP) was launched on April 5, 2012 by President of Nigeria as reported by the Vanguard Newspaper of April 6, 2012*
http://allafrica.com/stories/201204060063.html

et al, 2009). The launching of the NTP and adoption of IFRS are expected to bring an end to this precarious practice and instil sanity to the Nigeria tax system.

Nigerian Legal System:

The Nigerian legal system is based on the English common law and legal tradition as a result of its colonial past as a part of the British Commonwealth (Igbokwe, 2011). The English law has a tremendous influence on the Nigerian legal system, and it forms a substantial part of Nigerian law. By virtue of the Foreign Jurisdiction Acts 1890 - 1913 and Colonial laws validity Act of 1864, the British Crown was empowered to legislate for all territories under the rule and protection of the British Government. Consequently, Section 45 (1) of the Interpretation Act (now Cap 124, LFN 2004) provides that;

"Subject to the provisions of this section and except in so far as other provision is made by any federal law, the common law of England and the doctrines of equity, together with the statutes of general application that were in force in England on the 1st day of January, 1900, shall be in force in Lagos and, in so far as they relate to any matter within the exclusive legislative competence of the federal legislature, shall be in force elsewhere in the federation".

Therefore, the common law of England, the doctrines of equity as well as statutes of general application in force in England as at 1st January 1900 form an integral part of the laws in Nigeria (Tobi, 1996). Other sources of Nigerian law include local legislation (State and Federal), Nigerian case law as well as customary law. The principles of judicial precedent and hierarchy of courts is also a fundamental part of the legal system with the Supreme Court of Nigeria at the apex of the court system followed by the Court of appeal, the Federal High Court, the High Court of the Federal Capital Territory, Abuja, the Sharia Court of Appeal of the Federal Capital Territory and the Customary Court of Appeal of the Federal

Capital Territory. However, the constitution also created for each state a High Court of the state, the Sharia Court of Appeal and a Customary Court of Appeal (Tobi, 1996).

The legal system in Nigeria suffers from undue political interference, bureaucratic delays, insufficient funding, large scale corruption (Mbaku, 2007) and lack of efficient document-processing system. The delay in prosecution of criminals and execution of justice makes the legal system very porous. The weak legal system makes it easy for companies to manipulate and customise their financial statements to suit specific purposes[10]. One of the fundamental objectives of IFRS adoption in Nigeria is to checkmate the nefarious activities of companies especially the manipulation of their financial reports. The newly established FRC has been given powers to monitor the activities of companies in order to ensure strict compliance with IFRS adoption and implementation framework on the preparation of financial reports, with a view to eradicating corruption while improving the quality of the prepared financial reports.

Nigerian Cultural System:

Nigeria is a diverse and multicultural nation with over 50 languages and over 250 dialects and ethnic groups (Udebunu, 2011). Nigeria is the most populous nation in Africa with a population of 174 million and the 12th largest producer of Crude Oil in the world (OPEC, 2015; NBS, 2015). The three largest ethnic groups in order of population strength are the Hausa-Fulani who are predominant in the North and speak Hausa language, the Yoruba who are predominant in the Southwest and speak Yoruba language and the Igbo are predominant in the South-eastern part, and speak Igbo language (Olayinka, 2012).

[10] *As reported by the Nation Newspaper of 18/04/2012, Professor Pat Utomi, the Director of Lagos Business School and a former Presidential candidate said "one of the biggest challenges facing Nigeria is that one cannot be sure of justice because the judicial system is very weak. Foreign Direct Investment in Nigeria is low because investors would never be sure of getting justice, in case there would be need to resolve disputes over contracts and would rather prefer to invest in "more serious" countries ".*

The advent of globalisation has brought nations, regions, jurisdictions and cultures together across the world in contemporary terms (Clernents et al., 2010). Through constant interaction, the cultural practices in emerging economies permeate to those of developed worlds and vice versa with far reaching consequences (Olayinka, 2012).

The various elements of culture that prevail in a particular country may influence the accounting practice argued by Haniff (2006), since accounting and auditing involve both technical and cognitive activities. Two cultural aspects that may have substantial influence on the profession are the ideology and the socio-economic structure (Clernents et al., 2010). The ideology in forms of societal norms and values such as collectivism, attitude towards time, professionalism, innovation, flexibility etc. as well as dominance of religion, sentiments, ethical principles, ethos and the like in the society's everyday life as discussed in section 2.2.2. The latter include factors such as the political and legal system, the power of the profession, the tax system, education system etc., inherent in the country as discussed in the previous sections.

In Nigeria today, cultural practices greatly influence the accounting profession. The introduction of Sharia Islamic system in most of the Northern states of the country brought about complications on how some items of the balance sheet and income statement items are treated. For example, most of the financial institutions treat accrued interest on an individual accounts differently, which is in most cases is rejected by the customer according to Islamic provision[11]. Some banks recognise the accrued rejected interest as part of their income or post the amount to a suspense account which is then declared as part of the banks revenue. This will greatly affect the declared income of the bank at the end of the reporting period (Haniff,

[11] *http://highered.mcgraw-hill.com/sites/dl/free/0078110955/923557/Sample_Chapter_02.pdf pg.39*

2006). Islamic Financial institutions (IFIs) like the Islamic Bank of Britain apply IAS 17: *Leases,* to recognise and measure any income derived from such transactions (Uddin, 2010).

Based on the various factors that shape and influence the accounting practices in Nigeria as described above, the next section compares the provisions of IFRS, UK GAAP and the Nigerian GAAP in terms of their provision, guidance and treatment of financial statement items.

2.7: COMPARATIVE ANALYSIS OF IFRS, UK GAAP AND NG-GAAP

The Nigerian Statement of Accounting Standards (SAS) or Nigerian Generally Accepted Accounting Principle (NG-GAAP), the UK Financial Reporting Standards (FRS) or UK-GAAP and IAS/IFRS are in many ways similar in terms of guidance and application of the standards. Most of the NG-GAAP are similar to the FRS and Statement of Standard Accounting Practice (SSAP) under UK-GAAP. These similarities could be attributed to the colonial ties between the two countries and the strong interrelationship in terms of accounting education, Oil and Gas, business & investments, finance, banking and other trade related issues between the UK and Nigeria. However, Nigerian GAAP standards are stakeholder oriented and commonly viewed as historical cost accounting model that emphasise earnings management while IFRS standards are shareholder oriented and perceived as fair value accounting model that emphasise balance sheet valuation. Literature has shown that a country is more likely to adopt IFRS if its business and trade partners are IFRS adopters (Ramanna and Sletten, 2009).

Most of the IAS/IFRS issued by IASB have equivalent SAS issued by NASB as shown in appendix 6.5. However certain standards issued by the NASB do not have equivalent IAS and vice versa. For instance, IAS where no equivalent SAS exist are; IAS 1:

Framework for the preparation of financial statements; IAS 14: *Segment Reporting*, IAS 18: *Revenue*, IAS 20: *Accounting for Government Grants and Disclosure of Government Assistance*, IAS 22: *Business Combinations*, IAS 23: *Borrowing Costs*, IAS 24: *Related Party Disclosures*, IAS 32: *Financial Instruments Presentation*, IFRS 7*: Financial Instruments Disclosure*, IAS 39: *Financial instruments: Recognition and Measurement*, IAS 36: *Impairment of Assets* and IAS 41: *Agriculture*, despite agriculture being the second major source of income in Nigeria.

Whereas local standards (SAS) where no international standards (IAS) equivalents exist include SAS 14: A*ccounting in the Petroleum Industry - Upstream Activities*, SAS 17: *Accounting in the Petroleum Industry – Downstream Activities*, SAS 16: *Accounting for insurance Business*; and SAS 20: *Abridge Financial Statements*. However, there are new standards recently issued by IASB, like IFRS 6: *Exploration for and evaluation of mineral resources, IFRS 11: Joint arrangements, IFRS 12: Disclosure of interest in other entities etc*. While the characteristics of the SAS are provided in appendix 6.4, a comparative analysis of the guidance of IFRS vs. NG-GAAP, IFRS vs. UK GAAP and IFRS vs. US-GAAP standards in respect of recognition, measurement and classification of assets, liabilities, revenues and expenditures of Oil and Gas companies are provided in appendices 6.5, 6.6 and 6.7 respectively at the end of this report. These standards and their specific guidance are however discussed below.

IFRS 1: First Time Adoption of IFRS

IFRS provides guidance on how to apply IFRS for the first time (First Time Adoption or IFRS 1). First time adoption of IFRS as the primary accounting basis requires full retrospective application of IFRS effective as at first reporting period with some mandatory exceptions and optional exemptions (IASB, 2010). IFRS 1: *First time adoption* of

International Financial Reporting Standards sets out the procedures that an entity must follow when it adopts IFRS for the first time as the basis for preparing its general purpose financial statements. IFRS 1 encapsulates all adoption and reconciliation requirements for the initial application of IFRS; as such the standard must be followed in full by all listed entities in Nigeria when stating their 2012 opening balances. There is no equivalent standard to IFRS 1 under UK GAAP and NG-GAAP.

IAS 1: Presentation of Financial Statement
SAS 2: Information to be disclosed in financial statement

In the presentation of financial statements, IAS 1: *Presentation of financial statements* sets out the requirements for the overall financial statement. The standard explicitly states how the financial statements should be structured, the minimum requirements for their content. IAS 1 requires companies to prepare and present the statement of financial position, statement of comprehensive income, statement of cash flow and notes to the account. There is no equivalent standard under the NG-GAAP to IAS 1 however, SAS 2: *Information to be disclosed in the financial statement* is the closest standard and requires companies to prepare and present the Balance Sheet, Profit and Loss account, Cash Flow Statement and notes to the account. Moreover, IAS 1 requires listed entities to clearly state revaluation gains, foreign exchange differential etc. in the statement of comprehensive income. While the statement of extraordinary items is prohibited under IFRS, SAS 2 requires companies to present their extraordinary items in the profit and loss of the entity, distinct from the ordinary income and expenses for the period. IFRS prescribes the format in the preparation of income statement. In Nigeria, the Companies and Allied Matters Act (CAMA) of 1990, prescribes two formats for the presentation of the balance sheet. Table 2.1 compares the format and composition of IFRS based financial statement with the GAAP based financial statement.

Table 2.1: Comparison of GAAP and IFRS Financial Statements

Component	IFRS	GAAP
Statement of financial position/ balance sheet	Required	Required
Income statement/Profit and Loss Account	Required	Required
Statement of other comprehensive income	Required	Not Required
Statement of changes in equity	Required	Not Required
Statement of cash flows	Required	Required
Summary of significant accounting policies	Required	Required
Value added statement	Not required	Required
Five-year financial summary	Not required	Required
Cost Concept	Fair value orientation	Uses historical cost concept

Source: PwC, 2011

IAS 7, SAS 18: Cash Flow Statement

IAS 7: S*tatement of cash flows* as issued by the IASB is similar to SAS 18: *Statement of cash flows* issued by the NASB. Under both standards, cash flow from operating activities may be prepared using the direct method (cash flows derived from aggregating cash receipts and payments associated with operating activities) or indirect method (cash flows derived from adjusting net profit or loss for transactions of a non-cash nature, such as depreciation, and changes in working capital). Under IFRS cash flows statement is mandatory for all entities and is an integral part of the financial statement. Under NG GAAP, cash flow statement is not required for non-listed entities, while listed entities are only required to provide explanatory notes in place of the statement of cash flows.

IAS 27, SAS 27: Consolidated and Separate Financial Statements

IAS 27: *Consolidated and Separate Financial Statements* and SAS 27: *Consolidated financial statements* are comparable in many ways. Both standards require the parent entity to prepare consolidated financial statement that includes all subsidiaries. Although, CAMA

exempts a wholly owned subsidiary of another entity that is incorporated in Nigeria from preparing group (consolidated) financial statements (PwC, 2011). In the UK, FRS 2: *Accounting for subsidiary undertakings* is in many aspects similar to IAS 27. The only difference is that IAS 27 includes guidance on the treatment of investments in subsidiaries in the parent's financial statements, whereas FRS 2 does not.

IAS 28, SAS 28: Investment in Associates

An associate as defined by IFRS is 'an entity over which the investor has significant influence' – that is, the power to participate in, but not control, the associate's financial and operating policies (E&Y, 2015). This definition is in line with that of NG-GAAP definition of associate. The UK equivalent standard FRS 9: *Associates and Joint ventures* however, is slightly different. FRS 9 requires an investor's share of its associates' operating results be brought into the consolidated profit and loss immediately after group operating profit while, IAS 28 requires only that the investors consolidated profit and loss reflect the share of the results of its investee.

IAS 36: Impairment of Assets, SAS 9: Accounting for Depreciation

There is no equivalent standard to IAS 36 under NG-GAAP that provides guidance on impairment of assets. The closest standard is SAS 9: *Accounting for depreciation*, which requires entities to conduct annual depreciation of their assets on straight line basis over the life of the assets. Under IAS 36, if the investment has objective evidence of one of the indicators of impairment set out in IAS 39: *Financial Instruments: Recognition and Measurement*, the investment is tested for impairment as a single asset. In the UK, FRS 11: *Impairment of fixed assets and goodwill* is the equivalent standard to IAS 36 and the basic recognition approach is the same as IAS 36.

IAS 31, SAS 29: Interest in Joint Venture

IAS 31: *Interest in joint ventures* and SAS 29: *Interest in joint ventures* are technically comparable. IFRS defines JV as a contractual agreement whereby two or more parties undertake an economic activity that is subject to joint control. FRS 9: *Associates and Joint ventures* under UK GAAP is also similar to IAS 31. The only material differences in disclosure for joint ventures (JVs) is that where the aggregate of the venturer's share in all its JVs exceeds 15% of the value of the total group, FRS 9 requires additional disclosure of the aggregate of the venture's share in its JVs' fixed assets, current assets, liabilities due within one year and liabilities due after one year. Additionally where the share in JVs exceeds 25% of the group total, the venturer should disclose the aggregate of its share of JVs' profit before tax, taxation and profit after tax. IAS 31 contains no such requirements.

IAS 38: Intangible Assets
SAS 22: Research and Development Costs
FRS 10: Goodwill and intangible assets
SSAP 13: Accounting for research and development

Under IFRS, IAS 38: *Intangible assets* requires intangible assets to be recognised separately from goodwill if it represents contractual or legal rights or is capable of being separated or divided and sold, transferred, licensed, rented or exchanged. There is no guidance under NG-GAAP on identifying intangible assets or how to account for them after the acquisition date. FRS 10: *Goodwill and intangible assets* and SSAP 13: *Accounting for research and development* under UK GAAP are similar to IAS 38, but include a presumption that the useful economic life of an intangible asset is 20 years or less. IAS 38 allows an intangible asset to have indefinite life, and in such cases need not be amortised. Under IAS 38, research costs must be written off as incurred, whereas development costs should be capitalised where particular criteria are met. SSAP 13 allows a choice regarding capitalisation of product and service development costs. The closest standard to IAS 38 under NG-GAAP is

SAS 22: *Research and Development costs* and provides similar guidance to SSAP13 and IAS 38 in the classification and treatment of research and development costs.

IAS 18: Revenue Recognition
FRS 5: Reporting the substance of transaction

In terms of revenue recognition, IFRS under IAS 18: *Revenue recognition* has set out the criteria to be applied in determining when revenue should be recognised. The main sources of revenue are from sales of goods, rendering of services, others' use of the entity's assets (yielding royalties, interest, etc.) and construction contracts. The revenue recognition criteria for each of these categories include the probability that the economic benefits associated with the transaction will flow to the entity and that the revenue and costs can be measured reliably. However, there is no well-developed specific standard on revenue recognition under NG-GAAP, except for construction contracts. In practice, revenue is recognised based on the terms of contractual agreements entered into. Where there is no express contract, the Sale of Goods Act, a statute of general application is used. FRS 5: *Reporting the substance of transaction* under UK GAAP is the closest equivalent and provides similar guidance to IAS 18 in the recognition and treatment of revenue items..

IAS 16, SAS 3: Property, Plant and Equipment
FRS 15: Tangible fixed assets

Property, Plant and Equipment (PPE) as defined under IFRS are tangible assets that are held by an entity for: (i) use in the production or supply of goods or services; (ii) rental to others; or (iii) administrative purposes, and are expected to be used during more than one period. IAS 16: *Property, plant and equipment* measures the cost of an item of property, plant and equipment as: (a) its purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates; (b) any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in

the manner intended by management; (c) the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located (provision for decommissioning costs), the obligation for which an entity incurs either when the item is acquired or as a consequence of having used the item during a particular period for purposes other than to produce inventories during that period (PwC, 2011). This includes costs of testing whether the asset is functioning properly. Start-up and pre-production costs must not be capitalised unless they are a necessary part of bringing the asset to its working condition. Whereas SAS 3: *Property, plant and equipment* under NG-GAAP, provides that the cost of items of property, plant and equipment should be recorded at their initial cost including directly attributable expenses incurred in order to bring them into operation for the intended use. In the UK, FRS 15: *Tangible fixed assets* is the closest standard to *IAS 16* and provides similar guidance. FRS 15 requires all tangible fixed assets to be initially measured at cost. Only costs that are directly attributable to bringing the asset into working condition for its intended use should be included.

IAS 2: Inventories
SAS 4: On Stocks
SSAP 9: Stocks and long term contracts

Under IFRS inventories are assets: (i) held for sale in the ordinary course of business, (ii) in the process of production for such sale, or (iii) in the form of materials or supplies to be consumed in the production process or in the rendering of services within one period. This definition is broadly comparable to that of NG-GAAP. Although under NG-GAAP, stocks include those finished goods and livestock awaiting sale, work-in-progress, raw materials and supplies to be consumed in the production of goods or the rendering of services. Guidance under IAS 2: *Inventories* require inventories to be measured at the lower of cost (comprise all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to

their present location and condition) and net realisable value. Whereas under NG-GAAP, SAS 4: *On stock* is the closest standard to IAS 2 and requires stocks to be valued at the lower of cost or net realisable. SSAP 9: *Stocks and long term contracts* under UK GAAP however, allows similar treatment only that last in first out (LIFO) method of inventory valuation is also permitted. IAS 2 and SAS 4 allow first in first out (FIFO) and weighted average methods while LIFO is prohibited under both standards.

IAS 12, SAS 12: Income Taxes

IAS 12: *Income taxes* and SAS 12: *Accounting for deferred tax* have similar treatment for tax and require that all taxes be recognised as a liability to the extent unpaid. If the amount of tax paid exceeds the amounts due, the excess shall be recognised as an asset. FRS 16: *Current taxes* under UK GAAP, is the equivalent standard to IAS 12 as issued by the IFRS and provides similar guidance.

IAS 21: Effect of Changes in Foreign Exchange Rates
SAS 7: Foreign Currency Conversions and Translations

IAS 21: *Effects of changes in foreign exchange rates* under IFRS and FRS 23: *Effects of changes in foreign exchange rates* and SSAP 20: *Foreign currency translation* under UK GAAP, provide that translation of transactions denominated in a foreign currency is done at the exchange rate valid as at the transaction date (ICAEW, 2011). While monetary assets and liabilities denominated in a foreign currency are translated at the closing (balance sheet) exchange rate and non-monetary foreign currency assets and liabilities are translated at the appropriate historical acquisition rate.

SAS 7: *Foreign Currency Conversions and Translations* under NG-GAAP however, provides that translation of transactions denominated in a foreign currency is at the exchange

rate valid as at the transaction date. No guidance exists for identifying the transaction date, while monetary assets and liabilities denominated in a foreign currency are translated at the closing (year-end) exchange rate and income statement amounts are translated using historical rates of exchange as at the date of the transactions or at the average rate for the period as a practical alternative. However, Upstream Oil and Gas operators are allowed to maintain their records in United States Dollars as their functional currency but are still required to present results for statutory purposes in Nigerian Naira using the above translation rules.

IFRS 6: Exploration for and Evaluation of Mineral Resources
SAS 14: Accounting in the Petroleum Industry: Upstream Operations
SAS 17: Accounting in the Petroleum Industry: Downstream Operations

The extractive industry is a specialised sector with lots of complications regarding the recognition, measurement, classification and treatment of assets in the books of Oil and Gas companies. IFRS 6: *Exploration for and evaluation of mineral resources* is a standard tailored specifically to the extractive industries to provide temporary guidance for the treatment of exploration and evaluation costs pending the outcome of the wider extractive industries project being executed by the IASB. However, entities transitioning to IFRS are permitted to continue using their current local accounting policy for exploration and evaluation of mineral resources. IFRS 6 is limited in scope and only focuses on the exploration and evaluation (E&E) phase and provides guidance for the treatment of E&E costs only and does not apply to costs incurred after this phase is completed.

Under IFRS 6, expenditures incurred in exploration activities should be expensed unless they meet the definition of an asset – when it is probable that economic benefits will flow to the entity as a result of the expenditure or when it has been determined that the expenditures will lead to the discovery of commercially recoverable quantities of

hydrocarbon resources. NG-GAAP, SAS 14: *Accounting in the petroleum industry: Upstream Operations* provides guidance on the treatment of all costs incurred in upstream activities while SAS 17: *Accounting in the petroleum industry: Downstream Operations* provides guidance on the treatment of all costs incurred in downstream operations. Entities are permitted by the IASB to apply either the Full Costs (FC) or Successful Efforts (SE) accounting methods (treated in details in the next chapter) to account for all expenses incurred in Oil and Gas exploration and production activities.

Based on the above comparisons, it is evident that majority of the IAS/IFRS, NG-GAAP and FRS provide different guidance in the recognition, measurement and classification of financial statement items. Therefore, financial statements prepared under the guidance of IAS/IFRS by a listed entity in a particular period will be completely different from the same financial statements prepared under the guidance of NG-GAAP or FRS for the same period. The main focus of this research therefore is to investigate the extent of the differences in the financial statement items of Nigerian and African listed Oil and Gas companies after their transition from GAAP to IFRS.

The next section will discuss the challenges envisaged in the adoption and implementation of IFRS in Nigeria.

2.8: CHALLENGES OF IFRS ADOPTION IN NIGERIA:

Previous research on the adoption and implementation of IFRS in various jurisdictions has documented that the transition did not go smoothly as envisaged. A number of researchers (see Shleifer & Vishny, 2003; Irvine, 2008; Alp & Ustundag, 2009) have reported that accounting policy changes in different countries was beleaguered by myriad of problems. Recent studies on the adoption and implementation of IFRS in Nigeria show that the

accounting policy changes was faced with similar challenges as obtained in other jurisdiction (see Mwaura & Nyaboga, 2009; Othman & Chebaane, 2014; Ocansey & Enahoro, 2014 and Oraka, 2015). Nigeria is a multicultural country with very volatile economic and political systems, high level of inconsistencies in governance and poor implementation of certain key economic policies as discussed earlier. In the course of this research, a lot of impediments have been identified that would hamper the smooth implementation of IFRS in Nigeria. The most obvious among these challenges are highlighted as follows;

I. Inconsistency in Government Policies:

It is a common practice in Nigeria to review, reverse or abandon government programmes and other sensitive economic decisions, policies and projects in the event of change in leadership in the country[12]. In Nigeria, majority of economic policies go with the initiating government. In their quest to discredit the initiators or score cheap economic and political vendetta, the new government tend to cancel, review or reverse sensitive economic policies and contracts initiated by its predecessor regardless of the consequences, viability or economic value of the policy.

II. The Issue of Corruption:

Another issue anticipated as a big challenge to IFRS adoption in Nigeria is the incessant corruption in private and public sectors. The growing rate of corruption would deprive the listed companies and the Nigerian economy from deriving the full benefits of adopting the mandatory IFRS standards. However, it is evident that the recently elected government is making a headway in suppressing corruption by empowering the Economic and Financial

[12]*Policy inconsistency threatens Nigeria's development – Nigeria's Minister of Finance, Olusegun Aganga at a recent policy dialogue session with the organised private sector, put together by the Nigerian Economic Summit Group (NESG) as reported by Businessday Newspaper of June 22, 2010 http://www.businessdayonline.com/ARCHIVE/index.php?option=com_content&view=article&id=12012:policy-inconsistency-threatens-nigerias-development-&catid=117:news&Itemid=544*

Crimes Commission (EFCC) established in 2004 and Independent Corrupt Practices and other related offences Commission (ICPC) established in 2000 to arrest, investigate and prosecute without delay any individual, group or company found in violation of the laws of the land. These anti-graft commissions when fully exploited will cleanse the country of all social, financial and economic vices.

III. Poor Record Keeping:

The nonchalant attitude of most Nigerian companies in terms of proper accounting and record keeping is making it difficult for these companies to provide accurate and up to date accounting and financial data as appropriate. However, IFRS is synonymous with accountability and comparability of accounting information. It is therefore incumbent on companies to prepare and file with the relevant authorities, all accounting and other necessary financial information in order to fulfil the disclosure requirements of IFRS.

IV. Lack of Sufficient Technical Knowledge:

The lack of technical accounting knowledge, skill and expertise required for IFRS reporting among accountants and preparers of financial statement is another challenge facing IFRS adoption and implementation in Nigeria. An average accountant as reported by Deloitte (2012) in most entities lacks understanding of advanced financial management techniques like financial instruments valuation, impairment detection and analysis, decommissioning estimation techniques and other innovations in modern financial accounting and reporting. However, having identified this weakness, the Nigerian government recently established the IFRS academy with the aim of providing trainings in all aspects of IFRS implementation and application in the preparation of financial statements.

V. Team Work:

The importance of team work in any organisation cannot be overemphasised. Lack of cooperation from other departments outside the finance unit would be a challenge for some entities. The robustness of IFRS would involve the cooperation of all units (Legal, admin, human resources, technical units etc.) of an organisation to contribute to the reporting process. Lack of this cooperation will impact negatively on the IFRS adoption and implementation process.

VI. Inertia for Change:

The staff and management of most reporting entities in Nigeria are reluctant to embrace this change in accounting policy. Reluctance to change is pervasive across entities especially those that perceive IFRS as a costly and time consuming venture. This will result in laid back attitude amongst staff on IFRS matters and account for the delay in IFRS implementation.

VII. Power Tussle Between ICAN and ANAN

The impending power tussles and clash of interest between the two recognised and prominent professional accounting bodies pose a big threat to the smooth implementation of IFRS and accurate application of the accounting standards. There is need for the Nigerian government to intervene and harmonise the activities and operations of these bodies with those of the newly established IFRS academy in order to effectively achieve the objectives of the transition from GAAP to IFRS.

VIII. Lack of Effective Monitoring Mechanism:

Nigeria has porous and weak mechanisms for the monitoring of full compliance with the policy framework of IFRS as issued by the IASB. The monitoring and enforcement of accounting and financial reporting is provided for in the Companies and Allied Matters Act

of 2004. The NASB was statutorily empowered under the 2003 NASB Act to monitor and enforce compliance with accounting standards. The NASB also prescribes sanctions for non-compliance with the accounting standards. However, the NASB lacks the appropriate capabilities in terms of infrastructure, financial and human resources to monitor and enforce full compliance with the IFRS. From the legal point of view, the time consuming nature of the legal processes and procedure in Nigeria (see (Mbaku, 2007; Igbokwe, 2011; Ojo, 2012) discourages regulators from taking legal recourse in enforcing compliance with accounting, auditing and financial reporting requirements. However, the dissolution of NASB and the subsequent establishment of Financial Reporting Council (FRC) with more powers to impose strict compliance with the adoption and application of IFRS in accounting and financial reporting of listed companies is expected to remedy the situation.

IX. Inadequacy of the Standards:

Despite the fact that IFRS standards are robust and comprehensive, they fail to provide the necessary guidance in the certain critical areas. Presently, there is no substantive IFRS standard that provides adequate guidance to Oil and Gas companies in the recognition, measurement and classification of their development and production expenditures. The only standard issued by IASB specifically for the Oil and Gas companies is IFRS 6: E*xploration for and evaluation of mineral resources*. This standard is however limited in scope and only provides guidance on exploration and evaluation activities. Oil and Gas companies in Nigeria are left with no choice but to continue to apply the guidance of SAS 14 in the recognition, measurement and classification of their development and production expenditures. Furthermore, there is no equivalent IFRS standard to SAS 16: *Accounting for insurance business* in Nigeria. Insurance companies will continue to apply the guidance of this standard until a substantive standard is issued for the insurance business by the IASB.

2.9: CONCLUSION:

This chapter has provided an overview and historical development of accounting and accounting practices in various jurisdictions. The chapter discussed the significance and influence of culture and cultural practices on accounting systems with reference to Hofstede's (1980) cultural dimension models and Gray's (1988) accounting subcultural values. A comparison of the different accounting practices that obtains around the world was provided and discussed with emphasis on Anglo-American accounting system, Germanic accounting system, Latin accounting system and Asian accounting system. The historical development of accounting in Africa and the subsequent adoption and implementation of IFRS in many African countries was discussed with emphasis on Ghana, South Africa and Nigeria. A detailed comparison between the IFRS, FRS and NG-GAAP/SAS was provided in section 2.7.

From the comparison, this research has identified that many of the IFRS as issued by the IASB are in many ways significantly different from the GAAP as issued by the NASB in terms of their provisions and guidance in the recognition, measurement and classification of financial statement items. The primary focus of this research therefore, is to investigate the impact of the transition from GAAP to IFRS on the financial statements of listed Oil and Gas entities. Although considerable amount of literature has been published that investigated the impact of the accounting policy shift on the financial statement items of listed entities, there has been relatively no literature or prior studies that documented the impact of the adoption of IFRS on the financial statements of listed Oil and Gas companies.

In chapter three, literature will be reviewed in respect of the key aspects of Oil and Gas exploration and production in Nigeria. A brief overview of the African Oil and Gas sector will be provided followed by a detailed discussion of the advent of the Crude Oil and Gas vis-à-vis the exploration and production of hydrocarbon resources in Nigeria. The

various stages of Crude Oil and Gas exploration and production will be discussed and the main methods of accounting applied by Oil and Gas companies to account for their exploration and evaluation expenditures will be discussed. The key accounting standards that provide guidance to Oil and Gas companies in the recognition, measurement and classification of their assets, liabilities, revenues and expenditures under GAAP and IFRS will be presented and discussed in details.

The chapter will also review the literature on the impact of the adoption of IFRS on the Key Performance Measures of Oil and Gas companies, the Exploration and Evaluation expenditures, the provision for decommissioning of Oil and Gas installations and environmental rehabilitation expenditures, the average daily cost of Crude Oil production per barrel and the impact of the adoption of IFRS on the contractual relationships between Oil and Gas companies and the Nigerian Government. This literature review and the differences identified between GAAP and IFRS standards will constitute the basis for formulating the main research questions and developing the appropriate hypotheses to address the research questions.

CHAPTER THREE:

FINANCIAL REPORTING IN THE OIL AND GAS SECTOR

CHAPTER THREE: FINANCIAL REPORTING IN THE OIL AND GAS SECTOR

3. 1: INTRODUCTION:

In the preceding chapter, a general overview of accounting systems and the influence of culture on accounting values and subsequently on accounting systems and practices around the world were discussed. An overview of accounting practices and the international cultural differences in various jurisdictions were presented and discussed with reference to Hofstede's (1980, 1991) Cultural Dimension Model and Gray's (1988) Accounting Subcultural Values. A brief comparison between GAAP, IFRS, UK-FRS and US GAAP was presented which formed part of the bases for the formulation of the research questions. The adoption and implementation of IFRS in Nigerian and other Crude Oil producing countries in Africa and the various stakeholders in the adoption and implementation of IFRS were presented and discussed. The key stakeholders in the adoption and implementation of IFRS as well as the factors that influence the adoption of the policy in Nigeria were highlighted. Finally, the chapter concludes by discussing the main challenges anticipated in the Adoption and implementation of IFRS in Nigeria

In the present Chapter, a general overview of Nigerian Oil and Gas Sector and the development of accounting and financial reporting in the Oil and Gas industry will be discussed. Section 3.2 will discuss the African Oil and Gas sector and the main players in the exploration and production of hydrocarbon resources in Africa. In section 3.3 the historical development of Nigerian Oil and Gas sector is discussed with emphasis on the influence of foreign Oil and Gas companies in the growth and development of the Nigerian extractive sector. Section 3.4 presents the main activities involved in the exploration of hydrocarbon

resources with emphasis on Acquisition, Exploration, Development and Production activities. This section further compares the treatment of Exploration and Evaluation (E&E) costs under the NG-GAAP and after IFRS adoption. Section 3.5 discusses the two main accounting methods in the Oil and Gas Sector; the Full Cost Accounting (FC) and the Successful Efforts (SE) methods, their commonalities and differences in the classification of Exploration and Evaluation expenditures and other expenditures incurred in Oil and Gas exploration and production. This will be followed by the key accounting standards applied in the Oil and Gas sector to provide guidance in the recognition, measurement and classification of Oil and Gas assets, liabilities, revenues and expenditures in section 3.6. Section 3.7 discusses the effects of IFRS adoption on financial statements of listed entities in terms of Key Performance Indicators (KPIs), average daily production costs of Crude oil per barrel, Exploration and Evaluation expenditures, Decommissioning expenditures, contractual relationships between Oil and Gas companies and the host governments and the impact of IFRS adoption on accounting quality. Finally, Section 3.8 summarises and concludes the chapter.

3.2: THE AFRICAN OIL AND GAS SECTOR:

The African continent is blessed with enormous deposits of proven hydrocarbon resources. According to the BP Statistical Review of Energy (BP, 2015), Africa has a proven Crude Oil reserve of about 127 billion barrels at the end of 2014 which is about 7.7% of the world crude reserves. According to US EIA report, Africa's proven Oil reserves have grown by nearly 120% from 57billion barrels in 1980 to about 120billion barrels in 2012 (EIA, 2013). The US Energy Information Administration (EIA, 2014) reported that 16 of the 54 African countries including Nigeria, Angola, Libya, Algeria, Sudan, South Sudan, Equatorial Guinea, Congo (Brazzaville), Gabon, Chad, Egypt, Tunisia, Cameroon, Ivory Coast, Democratic Republic of Congo (DRC), and Mauritania are exporters of Crude Oil. The Oil

and Gas sector is of critical importance to the Africa's economy and accounts about 57% of the continent's total export earnings (KPMG, 2015). Libya with about 48.47 billion barrels has the largest proved Crude Oil reserve in Africa followed by Nigeria (37.14 billion barrels), Algeria (12.2 billion barrels) and Angola (9.06 billion barrels). Other African countries with substantial proven reserves of hydrocarbon resources are Egypt, South Sudan and Gabon (World Bank, 2012). Other emerging economies with prospective crude reserves include Uganda, Kenya and Ghana (OPEC, 2015) that joined the ranks of West African Oil producers following discovery of commercially producible quantities of hydrocarbon resources. New Oil finds has made some African countries like Mozambique, Tanzania, Ghana, Kenya and Uganda to be regarded among the fastest growing economies of the world (World Bank, 2010). Presently, there are over 500 Crude Oil and Gas exploration and production companies that participate in the exploration of hydrocarbon resources in Africa (KPMG, 2014). Table 3.1 shows a breakdown of the total proven Crude Oil and Gas reserves in Africa in relation to the world total.

Table 3.1: Africa Crude Oil and Gas Reserves 2014:

Crude Oil Reserves (billion bbls)			**Gas Reserves (Trillion Cubic Feet)**	
Africa	126.73	7.7%	607	8.9%
Other Countries	1,519.17	92.3%	6,238	91.1%
World Total	1,645.90	100%	6,845	100%

Source: US Energy Information Administration Report (EIA), 2014

The successful discovery of Crude Oil in East Africa, onshore Uganda in 2006, the recent offshore discoveries of natural Gas in Tanzania and the March 2012 discovery of Oil

in Kenya, in the remote onshore Turkana region, is expected to rapidly expand the production of Crude Oil and Gas in the African continent over the medium to long term (KPMG, 2013). South Africa however, has a small amount of Oil and Gas production with limited Crude Oil reserves (KPMG, 2015). The Kudu Gas field off the coast of Namibia is the country's only known hydrocarbon resource and contains large reserves of good quality dry gas. Nigeria is reported to hold about 2.5% of the world Crude Oil reserves and 2.7% Gas reserves according to the BP Statistical Review (2014). Nigeria accounted for about 25% of the African and 2.6% of total world Crude Oil production in 2013 (Saudi Arabia 12.9%, Russia 12.7% and USA 8.6%) (EIA, 2014; NIETI, 2015).

Nigerian Extractive Industries Transparency Initiative (NEITI, 2013), reported that the Crude Oil and natural Gas production accounted for about 15% of Nigeria's real GDP in 2013. Nigeria's economy largely depends on the Oil and Gas sector which accounts for about 95% of the country's export receipts, around 15% of GDP and over 80% of fiscal revenue (EIA, 2013; EITI, 2013). Table 3.2 below shows a breakdown of the African Crude Oil production in relation to the world total.

Table 3.2: Africa - World Crude Oil Production - 2013

Location	Crude Oil Production (million bpd)	Percentage
Africa	9.35	10.4%
Other Countries	80.79	89.6%
World Total	90.14	100%

Source: US Energy Information Administration Report (EIA), 2014

However, most of the Crude Oil producing countries in Africa are bedevilled by challenges that hinder them from realising their full production potentials. According to a

KPMG report (2013) on Africa's Oil and Gas sector, the refining capacity on the continent remains limited and forcing countries like Angola and Nigeria to export Crude Oil, only to import refined petroleum products again later at an additional expense (KPMG, 2013). The most noticeable challenges in the African Crude Oil exploration and production include corruption, lack of turnaround maintenance of production and refining facilities, obsolete exploration, production and transportation equipment, Oil theft, undue interference with refining operations and sabotage in the form of Oil pipeline vandalisation, kidnappings of expatriate Oil workers for ransom and militants takeovers of Oil facilities in the Niger Delta region of Nigeria. In some countries like Nigeria, conflicts between the IOCs and residents of the Oil producing communities have also in many incidences interrupted the flow of Crude Oil into the refineries and forced them to shut down (ADB & AU, 2009). These challenges mostly emanated from the weak legal powers of regulatory environmental stakeholders as reported by Hassan & Kouhy (2015).

Table 3.3 shows the volumes of Crude Oil reserves and production of major Crude Oil producing countries in the Sub-Saharan Africa, in relation to the World proven Crude reserves and World Crude Oil production.

Table 3.3: Crude Oil Reserves and Production in Sub-Saharan Africa 2013

Country	Proven Crude Oil Reserve (billion barrels)	Share of World Reserve (%)	Crude Oil Production million barrels/day	Share of World Production (%)
Nigeria	37.140	2.24	2.372	2.63
Angola	9.060	0.55	1.889	2.09
Sudan	5.000	0.30	0.255	0.28
Gabon	2.000	0.12	0.238	0.26
Chad	1.500	0.093	0.098	0.011
Congo – Braz	1.600	0.097	0.278	0.31
Equa. Guinea	1.100	0.06	0.290	0.32
Ghana	0.66	0.04	0.099	0.012
Other	68.67	4.17	3.834	4.25
Total	**126.73**	**7.69**	**9.353**	**10.37**

Source: Adopted from US Energy Information Administration Report (EIA), 2014

3.3: OVERVIEW OF THE NIGERIAN OIL AND GAS SECTOR

The advent of the Oil industry in Nigeria can be traced back to 1908, when a German entity, the Nigerian Bitumen Corporation, commenced exploration activities in the Araromi area of Western Nigeria (NNPC, 2013). These pioneering efforts ended abruptly with the outbreak of the First World War in 1914. Oil prospecting efforts resumed in 1937, when Shell D'Arcy (the forerunner of Shell Petroleum Development Company of Nigeria) was awarded the sole concessionary rights covering the whole territory of Nigeria (NNPC, 2013). Their activities were also interrupted by the Second World War, but resumed in 1947. Concerted efforts after several years and an investment of over N30 million, led to the first commercial discovery in 1956 at Oloibiri in the Niger Delta by Shell D'Arcy Petroleum, with a modest production rate of 5,100 barrels per day. This discovery opened up the Oil industry in 1961, bringing in Mobil, Agip, Safrap (now Elf), Tenneco and Amoseas (Texaco and Chevron respectively) to join the exploration efforts both in the onshore and areas of Nigeria (CIA, 2006).

Nigeria began to export its entire production of 5,100 bpd in 1958 and was among the world's oil elite by 1972 with an average production of 2.46 Million Barrels per Day (bbl/day) (NNPC, 2013). According to the United States Energy Information Administration (EIA, 2012), Nigeria is the 10th largest Crude Oil producer in the world and the most prolific oil producer in Sub-Saharan Africa. Reserves of Crude Oil stand at 37.14 billion barrels, Natural gas reserves total 180 Trillion Standard Cubic Feet (scf), including 75.4 trillion scf of non-associated gas according to the Oil and Gas Journal (2011), making Nigeria the ninth largest natural gas reserve holder in the world and the largest in Africa (World Bank, 2013. Despite holding a top 10 position for proven natural gas reserves, Nigeria produced about 1Tcf of dry natural gas in 2011 and ranked as the world's 28th largest natural gas producer (CIA, 2012). The majority of the natural gas reserves are located in the Niger Delta and, therefore, the sector is also impacted by the same security and regulatory issues affecting the oil industry.

According to the NNPC Annual Statistical Bulletin (NNPC-ASB, 2012), Nigeria produced a total of 853 million barrels of Crude Oil in 2011 giving a daily average production of 2.27mmb/d. Total Gas production for the year was 2.6 Billion scf. However, of this production, only 77% of the gas was utilised while the remaining 23% was flared. Nigeria joined the Organisation of Petroleum Exporting Countries (OPEC) in 1971 and established the Nigerian National Petroleum Company (NNPC) in 1977; a state owned and controlled company which is a major player in both the upstream and downstream sectors. The light, sweet quality of Nigerian crude makes it a preferred gasoline feedstock. The BP Statistical Review (BP, 2015) reported that Nigeria had an estimated 37.2 billion barrels of proven Crude Oil reserves as of the end of 2014. The majority of reserves are found along the country's Niger River Delta and offshore in the Bight of Benin, the Gulf of Guinea and the

Bight of Bonny (Shittu, 2013). About 60% of Nigeria's Crude Oil is produced in the Niger Delta (KPMG, 2014). However, many of the Oil producing companies have reduced their presence in the Niger Delta due to militant activities. Current exploration activities are mostly focused in the deep and ultra-deep offshore with some activities planned in the Chad basin, located in the northeast of the country in the near future (OGJ, 2013).

3.3.1: Nigerian Economy and the Oil and Gas Sector

The Nigerian economy is largely dependent on its Oil sector which accounts for about 95% of its foreign exchange earnings, about 20% of the country's GDP and over 80% of fiscal revenue (NBS, 2013; NEITI, 2013). Nigeria's Oil bumper breakthrough started in 1973 following the political unrest in the Middle East (Shittu, 2013) that resulted in a sharp drop in crude oil production. Nigeria benefitted massively from the Oil boom as a result of sharp increase in global price of Crude Oil by as much as 400 per cent between October 1973 and March 1974 (Usman, 2011). The average crude oil price rose from $3 in 1973, to about $12 by December 1974. From modest Oil earnings of about $200 million in 1970, Nigeria earned about $32 billion between 1973 and 1978, averaging over $6 billion oil earnings per year (Usman, 2011). But crude oil prices began to take a tumble as the consuming world devised strategies to curtail their appetite.

The upstream Crude Oil industry is the single most important sector in the economy. According to the 2012 BP Statistical Energy Survey, Nigeria had proved Crude Oil reserves of 37.2 billion barrels at the end of 2011, equivalent to 41.4 years of current production and 2.25 % of the world's reserves. Majority of the Oil is produced in the prolific Niger Delta Region of the country. Since December 2005, Nigeria has experienced persistent conflict, violence and destruction of Oil and Gas facilities, pipeline vandalism, kidnappings and militant takeovers of oil facilities in the Niger Delta (Usman, 2011) due to weak powers of

regulatory environmental stakeholders (Hassan and Kouhy, 2015). The Movement for the Emancipation of the Niger Delta (MEND) is the main militant organization attacking oil infrastructure for political objectives, claiming to seek a redistribution of oil wealth and greater local control of the sector (Stevens et al., 2013). Additionally, kidnappings of oil workers for ransom are common and security concerns have led some oil services firms to pull out of the country and oil workers unions to threaten strikes over security issues which explain the nonchalant attitude of oil and gas companies toward environmental and social accountability (Hassan and Kouhy, 2015).

Other recurring problem in the upstream sector is the inability of the Nigerian National Petroleum Corporation (NNPC) to meet its funding obligations to the JVs (KPMG, 2013). Under JV terms, the NNPC shares costs with its IOCs. Since 1993, budgetary constraints on the NNPC have resulted in it being unable to meet its JV commitments leading to cut backs in exploration and production and several companies declaring force majeure on oil shipments. In order to incentivize investments in deep-water areas, which involve higher capital and operating costs, the government offered production-sharing contracts (PSC) in which IOCs received a greater share of revenue as the depth increased (KPMG, 2013, 2015). The IOCs take advantage of the situation and exploited the country in terms of oil revenue. Despite the problems associated with persistent ethnic unrest, corruption and political instability, Nigeria's wealth of oil makes it most attractive to the major oil-multinationals, most of whom are represented in Nigeria, with the major foreign stakeholder being Shell Nigeria petroleum exploration and production company (SNEPCO).

The Nigeria's downstream Oil sector is responsible for the refining and distribution and sale of the produced Crude Oil. The sector presently has four functioning refineries (Port Harcourt I and II, Warri, and Kaduna) with a combined capacity of around 445,000 bbl/d

(ADB & AU, 2009; OGJ, 2012). Problems such as sabotage, poor management, lack of turn around maintenance, corruption and undue interference (Usman, 2011) suppress the production capacities of these refineries and hamper the exploitation of their full refining capacities by about 60%. This has resulted in shortages of refined petroleum products and the need to increase imports (KPMG, 2015) in order to meet domestic demand. Nigeria has over a dozen domestic crude oil pipelines that funnel crude to export terminals and domestic refineries. Most of the pipeline systems are jointly owned by the major IOCs and NNPC, while the export terminals are operated by Shell (Forcados and Bonny terminals), ExxonMobil (Qua Iboe terminal), Chevron (Escravos and Pennington terminals) and Eni (Brass terminal). There are several floating production, storage and offloading (FPSO) vessels that facilitate exports from deep-water offshore fields.

Nigeria is an important Oil supplier to the United States. According the Energy Information and Administration (EIA, 2012), 767,000 bbl/d (33%) of Nigeria's crude exports was sent to the United States in 2011, making Nigeria the fourth largest foreign oil supplier to the United States (EIA, 2013). Other major importers of Nigerian crude oil include Europe (28%), India (12%), Brazil (8%), Canada (5%), and South Africa (3%). European countries account for about 20%, while South America buys about 7% of Nigeria’s crude oil.

3.3.2: Sabotage in the Oil and Gas Sector:

Bunkering, which in the context of Nigeria's Oil industry refers to the theft and trade of stolen Oil, has been the main cause of discrepancies in the projected and actual Oil revenue in Nigerian (Stevens et al., 2013). According to NNPC data, pipeline vandalism increased by 224% in 2011 over the previous year. Estimates from Nigeria's Ministry of Finance show that about 400,000 barrels of crude oil was stolen in April 2012, which led to a fall of about 17% in official oil sales revenue. Royal Dutch Shell, Nigeria's largest producer

of Nigeria's Crude Oil, in 2011 estimated that 150,000-180,000 barrels of crude oil per day or 6% of the country's total production, on average is lost to oil bunkering and spills (Shell, 2012; NEITI, 2013; Stevens, 2013). The company shut down its Nembe Creek Trunkline (NCTL) in April 2013 and declared a force majeure[13] on 150,000 barrels of crude oil per day as a result of leaks caused by crude oil thieves. In the same Month, the NNPC announced a drop in crude oil revenue of about $1.23 billion due to a drop in crude Oil production for the first quarter of 2013 (NNPC, 2014).

In order to correct the irregularities, restructure the Nigeria's Oil and Gas sector and revamp the Nigerian economy, a draft of the Petroleum Industry Bill (PIB, 2012) has recently been passed into law by the Nigerian National Assembly waiting for presidential assent. The main aims of this Bill are to completely reform the entire hydrocarbon sector in Nigeria and to review some of the obsolete contractual agreements between Nigeria and some IOCs (PIB, 2009). Some of the contentious areas to be addressed are; the deregulation of the downstream sector, creation of new regulatory bodies to check the menace of oil bunkering and corruption, commercialisation of the NNPC, a review and renegotiation of the existing contractual relations between the Nigerian Government and IOCs, the changes in tax and royalty structures, and clauses to ensure that companies use or lose their assets. However, the existing power tussle between the Nigerian Government and the Oil and Gas exploration and production companies and the massive influence of these companies on Nigerian economic policy enactments delayed the smooth passage of the PIB into law. The complete implementation of the recommendations of the PIB may not favour the Oil and Gas companies operating in Nigeria. Therefore, efforts were made by some power brokers in government and the Oil sector to scuttle and sabotage the passage of the PIB in to law.

[13] *Any unforeseen circumstance beyond the reasonable control of the oil and gas producing company that would hamper the production of a target volume of crude oil and gas over a certain period.*

3.4: ACTIVITIES IN THE OIL AND GAS SECTOR

There are basically two major operations in the extractive sector. The upstream operation which is made of activities up to where the explored reserves are capable of being sold, and the downstream operations where the reserves are processed and made available for sale (KPMG, 2013). The upstream operation is however subdivided into four major activities. The acquisition activities, exploration & evaluation activities, development activities and production activities. This section outlines the details of the activities in the various phases, the costs involved in carrying out each activity and how these costs are treated under NG-GAAP and under IFRS guidance.

3.4.1: Acquisition Activities:

Acquisition activities are carried out by an Exploration and Production (E&P) enterprise towards the acquisition of right(s) to explore, develop and produce Oil and Gas. Acquisition costs cover all costs incurred to purchase, lease or otherwise acquire a property or mineral right (Wright and Gallun, 2008). These include lease bonus, brokers' fees, legal costs, cost of temporary occupation of the land including crop compensation paid to farmers and all other costs incurred in acquiring these rights. These are costs incurred in acquiring the right to explore, drill and produce Oil and Gas including the initial costs incurred for obtaining the Petroleum Exploration License (PEL) or Letter of Authority (LOA) and Mining Lease (ML).

Table 3.4: Acquisition Activities: IFRS vs. NG - GAAP

Description of Activity	Costs Incurred	Cost Treatment - IFRS	Cost Treatment NG-GAAP
➢ Identification of areas of oil and gas finds. ➢ Approaching the owner who owns the rights for the exploration, development and production of the underground minerals in respect of the property or area. ➢ Obtaining a License (PEL) from the federal Government for surveys and exploration. ➢ Obtaining a Mining Lease (ML) for engaging, in development and production activities.	All costs incurred to purchase, lease etc. to acquire a property or mineral right; • Costs incurred in acquiring the right to explore, drill and produce oil and gas; • Initial Costs (and not Annual License Fees) incurred for obtaining the Petroleum Exploration License/Mining License • Lease Bonus, Brokers' Fees, Legal Costs, Cost of temporary occupation of land, Crop and compensation paid to farmers etc.	Capitalize initially**;** Depreciation (Depletion) charged to cost of oil and gas produced based on Units of Production Method.	Under the FC method, costs incurred on mineral rights acquisition, exploration, appraisal and development activities are capitalized irrespective of whether or not the activities resulted in the discovery or reserves. Under the SE method, costs incurred prior to the acquisition of mineral rights and other exploration activities not specifically directed to an identifiable structure are expensed when incurred. All costs incurred on mineral rights acquisition, are capitalized initially on the basis of wells, fields or cost centers pending determination. These costs are written off when it is determined that the well is dry.

From the Table 3.4, it can be seen that all costs associated with acquisition activities are capitalised initially under the IFRS guidance. When it is established that commercial deposits of Oil and gas resources are present, these costs are then expensed and charged to costs of Oil and Gas produced. Under the NG–GAAP however, all acquisition costs are treated using either FC or SE method. The FC method requires these costs to be capitalised irrespective of whether the activity will lead to the discovery of commercially producible quantities of Oil and Gas reserves or not (Wright and Gallun, 2008). The SE method requires these costs to be capitalised initially on the basis of wells/fields or cost centres. These costs are then written off when there are no commercially producible quantities of oil and/gas reserves.

3.4.2: Exploration and Evaluation Activities:

Exploration activities however cover the prospecting activities conducted in the search for Oil and Gas. In the course of an appraisal programme these activities include but are not limited to aerial, geological and geophysical (G&G) studies, geochemical, palaeontological, topographical and seismic surveys, analysis, studies and their interpretation. Other activities include investigations relating to the subsurface geology, structural test drilling, exploratory type stratigraphic test drilling, drilling of exploration and appraisal wells and other related activities such as surveying, drill site preparation and all work necessarily connected therewith for the purpose of oil and gas exploration (Wright and Gallun, 2008). The costs incurred in exploration activities include all direct and allocated indirect expenditure which include depreciation and applicable operating costs of related support equipment and facilities. Other exploration costs are G&G survey costs, which include costs of surveys and studies, rights of access to properties to conduct those studies (e.g., costs incurred for environment clearance, defence clearance, etc.) and salaries and other expenses of geologists, geophysical crews and other personnel conducting those studies. Costs of carrying and retaining undeveloped properties, such as delay rental, ad valorem taxes on properties, legal costs for title defence, maintenance of land and lease records and annual licence fees in respect of Petroleum Exploration License are all part of exploration costs. Further costs of exploration include dry hole contributions and bottom hole contributions; costs of drilling and equipping exploratory and appraisal wells; and costs of drilling exploratory-type stratigraphic test wells.

Oil and Gas exploration and production remains a risky business, despite technological progress (EIA, 2013). Discovering and producing new resources is a very challenging process, with physical, environmental, technological conditions becoming even

more difficult. Over the last ten years, globally, the rate of success in exploration activity has been around 25% (Nadine and Jean-Pierre, 2011). Onshore and offshore drilling each has its own technical peculiarities. According to the EIA report of 2013, an offshore well typically costs between $20 and $100 million and takes 30 to 100 days to drill. Whereas an onshore well costs between $5 and $20 million to drill, the duration being of the same order. However, when the conditions are particularly difficult, these costs may be much higher, occasionally exceeding $200 million (Nadine & Jean-Pierre, 2011). The following tables classify the various exploration activities in the Oil and Gas and how costs incurred on these activities are treated under GAAP and IFRS regimes.

Table 3.5: Exploration Activities: IFRS vs. NG-GAAP

Description of Activity	Costs Incurred	Cost Treatment - IFRS	Cost Treatment NG-GAAP
Aerial, Geological, Geophysical, Geochemical, Paleontological, Palynological, Topographical and Seismic surveys, analysis, studies and their interpretation; • Investigations relating to the subsurface geology including structural test drilling; • Exploratory type stratigraphic test drilling; • Drilling of exploration and appraisal wells and other activities such as surveying; • Drill site preparation and all work necessarily connected therewith for the purpose of oil and gas exploration.	All direct and allocated indirect expenditure of exploration activities including: • Costs of surveys, rights of access to properties to conduct those studies, salaries and other expenses of G&G crews and other G&G Costs • Costs of carrying and retaining undeveloped properties - delay rental, *ad valorem* taxes on properties, legal costs for title defense, maintenance of land and lease records and annual license fees - PEL; • Dry Hole and Bottom Hole Contributions; • Costs of drilling and equipping exploratory and appraisal wells; • Costs of drilling exploratory-type stratigraphic test wells.	Exploration costs should be expensed until it is determined that the estimated fair value less costs to sell the exploration prospect is positive or proved and probable reserves are present. However, G&G costs are Capitalized initially; Depreciation (Depletion) charged to cost of oil and gas produced based on Units of Production Method.	All costs incurred on exploration activities should be capitalized initially on the basis of wells, fields or cost centers pending determination. These costs should be written off when it is determined that the well is dry.

Exploration costs are required to be expensed under IFRS until it has been established that proven and probable reserves are present (PwC, 2010). Proven reserves are those quantities of petroleum which, by analysis of G&G data, can be estimated with a high degree of confidence to be commercially recoverable from a given date forward, from known reservoirs and under current economic conditions (CIA, 2012). However, the costs incurred in respect of G&G surveys are capitalised initially, then expensed on discovery of proven reserves and charged to costs of Oil and Gas produced (EY, 2009). Under NG-GAAP however, all exploration costs are capitalised initially pending the determination of commercially producible quantities of Oil and Gas reserves. The emphasis in this research is on the expenditures incurred in the exploration and evaluation phase of Crude Oil and Gas production. Table 3.5 above provides all the activities involved in the exploration of hydrocarbon resources and how the costs associated with these activities are treated under GAAP and IFRS regimes.

3.4.3: Development Activities:

Development activities for extraction of Oil and Gas include the purchase, shipment or storage of equipment and materials used in developing oil and gas, accumulations and completion of successful exploration wells, the drilling, completion and testing of development wells, the drilling, completion and re-completion of service wells, the laying of gathering lines and the construction of offshore/onshore platforms. Other activities include the installation of separators, tankages, pumps, artificial lift and other producing and injection facilities required to produce, process and transport oil or gas into main oil storage or gas processing facilities, either onshore or offshore. And finally, the laying of infield pipelines and the installation of the said storage or gas processing facilities. Development costs cover all the direct and allocated indirect expenditure incurred in respect of the development activities including costs incurred to gain access to and prepare well locations for drilling,

including surveying well locations for the purpose of determining specific development drilling sites (Wright and Gallun, 2008). Other costs include the costs of clearing the ground, draining, road building and relocating public roads, gas lines and power lines to the extent necessary in developing the proved oil and gas reserves. The costs of drill and equip development wells, development-type stratigraphic test wells and service wells including the cost of platforms and of well equipment such as casing, tubing, pumping equipment and the wellhead assembly are all recognised as development costs. Included in the development costs are costs to acquire, construct and install production facilities such as lease flow lines, separators, heaters, manifolds, measuring devices and production storage tanks, natural gas cycling and processing plants, utility and waste disposal systems (Wright and Gallun, 2008). Other development costs include costs include depreciation and applicable operating cost of related support equipment and facilities in connection with development activities, and annual license fees in respect of Mining Lease. Table 3.6 below provides a description of all the development activities and the costs associated with these activities under GAAP and IFRS regimes.

Table 3.6: Development Activities: IFRS vs. NG-GAAP

Description of Activity	Costs Incurred	Cost Treatment- IFRS	Cost Treatment NG-GAAP
Purchase, shipment or storage of equipment and materials used in developing oil and gas accumulations; •Completion of successful exploration wells; • Drilling, completion and testing of development and service wells; • Construction of offshore platforms and installations of separators, tankages, pumps, artificial lift; • Other producing and injection facilities required to produce, process and transport oil or gas into main oil storage or gas processing facilities, either onshore or offshore; and •Laying of infield pipelines, gas processing facilities.	Costs incurred to gain access to and prepare well locations for drilling; • Costs of surveying well locations for determining specific development drilling sites, gas lines and power lines; • Drill and equip development wells, test wells and service wells, cost of platforms, casing, pumping equipment and the wellhead assembly; • Costs to acquire, construct and install lease flow lines, production storage tanks, natural gas cycling, processing plants and waste disposal systems; • Depreciation Cost and annual Mining Lease	IFRS does not contain specific guidance for the treatment of development and production expenditures. Accounting policies applied have developed from practice. Development expenditures should generally be capitalized to the extent that they are necessary to bring the property to commercial production, (Costs must provide future benefits to the entity in order to be capitalized.) .	As with exploration and evaluation expenditure, development expenditure is accounted for using the full-cost or successful-efforts accounting methods

3.4.4: Production Activities:

Production activities consist of pre-wellhead (lifting the oil and gas to the surface, operation and maintenance of wells, extraction rights, etc.,) and post-wellhead (gathering, treating, field transportation, field processing, etc., up to the outlet valve on the lease or field production storage tank, etc.,) activities for producing oil and gas. The costs incurred in production activities consist of direct and indirect costs incurred to operate and maintain an enterprise's wells and related equipment and facilities, including depreciation and applicable operating costs of support equipment and facilities (Wright and Gallun, 2008). Pre-wellhead production costs include costs of labour, repairs and maintenance, materials, supplies, fuel and power, property taxes, insurance, severance taxes, royalty etc., in respect of lifting the oil and gas to the surface, operation and maintenance including servicing and work-over of wells. While Post-wellhead production costs include costs of labour, repairs and maintenance, materials, supplies, fuel and power, property taxes, insurance etc., in respect of gathering,

treating, field transportation, field processing, field production, storage tank etc. (Wright and Gallun, 2008).

Table 3.7 below provides a comparison of the production activities and their associated costs under GAAP in relation to the IFRS regime.

Table 3.7: Production Activities: IFRS vs. NG-GAAP

Description of Activity	Costs Incurred	Cost Treatment-IFRS	Cost Treatment NG-GAAP
Pre-Wellhead Activity: Lifting the oil and gas to the surface, operation and maintenance of wells, extraction rights, etc; •**Post-Wellhead Activity:** Gathering, treating, field transportation, field processing, etc. up to the outlet valve on the lease or field production storage tank, etc	**Pre-Wellhead costs:** Labour, R&M, materials, supplies, fuel and power, property taxes, insurance, severance taxes, royalty, etc., in respect of lifting the oil and gas to the surface, operation and maintenance including servicing and work-over of wells. •**Post-Wellhead costs:** Labor, R&M, materials, supplies, fuel and power, property taxes, insurance, etc., in respect of gathering, treating, field transportation and field Processing.	IFRS does not contain specific guidance for the treatment of development and production expenditures. However, production expenditure should only be capitalized if the expenditures meet the asset recognition criteria. This will be where the additional expenditure enhances the productive capacity of the producing property. or the cost is added to the cost of oil and gas produced, as on Operating Revenue Cost.	Guidance provided under FC and SE accounting methods. FC Method: Charge to expense as incurred SE Method: Charge to income statement

In the above four Tables (3.4 to 3.7) the major activities involved in the exploration and production of hydrocarbon resources are presented and discussed. The tables also show all the costs involved in executing these activities and the various treatment of these costs under GAAP and IFRS regimes.

The next section discusses the two main accounting methods used by Oil and Gas companies to account for the costs of exploration and evaluation of hydrocarbon resources under both GAAP and IFRS frameworks.

3.5: ACCOUNTING METHODS IN THE OIL AND GAS SECTOR:

The Successful Efforts (SE) Method and Full Cost (FC) Method are essentially the two alternative accounting methods applied by Oil and Gas companies in the recognition and measurement of their acquisition, exploration, development and production costs. However, in the US the FASB statement No 19 of 1979 requires all Oil and Gas operating companies to apply the SE method in the treatment of their costs of upstream activities (Eldanfour, 2011). FC firms led by smaller independent oil companies however launched an intense lobbying against the FASB 19 (Cortese et al., 2009). In 1978, the SEC released the accounting series (ASR) No 253 which permits Oil and Gas companies to apply either method to account for their costs of upstream operations. Consequently, the IASB permits companies in the extractive sector to apply either the FC or SE accounting methods to account for their exploration and evaluation expenditures as provided under the guidance of IFRS 6: E*xploration for and evaluation of mineral resources*.

3.5.1: Successful Efforts (SE) Accounting Method:

Under the successful efforts (SE) method, generally, only those costs that lead directly to the discovery, acquisition, or development of specific, discrete Oil and Gas reserves are capitalised and become part of the capitalised costs of the cost centre (Wright and Gallun, 2008; PwC, 2010). Costs that are known at the time of incurrence to fail to meet this criterion are generally charged to expense in the period they are incurred. When the outcome of such costs is unknown at the time they are incurred, they are recorded as capital work-in-progress and written off when the costs are determined to be non-productive (PwC, 2010). Under the SE method, the propriety of carrying forward costs incurred and subsequently matching them against future revenues depends on whether a specific cost can be identified with specific reserves. If this direct relationship does not exist, the cost should be charged to expense. If a

direct association does not exist between a non-productive cost and reserves found and developed, the cost should not be classified as an asset because it is deemed to not provide future benefits in the form of cash flows. Charging non-productive costs to expense is consistent with the framework, costs that do not result directly in future benefits are properly charged to expense (PwC, 2010; KPMG, 2013). If costs related to unsuccessful ventures are not charged to expense, both current and future financial statements are distorted because those costs must eventually be removed from the balance sheet and reported in the statement of profit and loss even though they contribute nothing to future revenues (KPMG, 2013).

Under the SE accounting method, in respect of a cost centre, all acquisition costs, exploration costs and all development costs should be treated as capital work-in-progress when incurred; all other costs should be charged to expense as incurred (PwC, 2010).

3.5.2: Full Cost (FC) Accounting Method:

Under the FC method, all costs incurred in prospecting, acquiring mineral interests, exploration and development are accumulated in large cost centres that may not be related to geological factors. The cost centre, under this method, is not normally smaller than a country except where warranted by major difference in economic, fiscal or other factors in the country (PwC, 2010). The capitalised costs of each cost centre are depreciated as the reserves in each cost centre are produced. Under the FC method, all costs incurred at any time and at any place in a cost centre in an attempt to add commercial reserves are an essential part of the cost of any reserves added in that cost centre. As a result they are directly associated with the enterprise's reserves in that centre and all the costs should be treated as part of the cost of the mineral assets in the cost centre (Wright and Gallun, 2008; PwC, 2010; KPMG, 2013).

Under the FC method, in respect of a cost centre, all acquisition costs, all exploration costs and all development costs should capitalised when incurred; all costs other than the

above should be charged as expense when incurred. Table 4.8 below shows how the acquisition, exploration, development and production costs are treated under SE and FC accounting methods.

Table 3.8: Comparisons of SE and FC Accounting Methods

Cost Incurred	SE Method	FC Method
Cost of acquisition of mineral rights	Capitalize	Capitalize
Geological and Geophysical (G&G) Costs	Expense	Capitalize
Cost of dry exploration well	Expense	Capitalize
Development Costs	Capitalize	Capitalize
Cost of exploration or productive well	Capitalize	Capitalize
Production Costs	Expense	Expense

Adapted from Wright & Gallun (2008)

Users of financial statements in the E&P industry are interested primarily in earnings and changes in earnings from year to year. It was argued that if SE accounting is used, distortions are caused by expensing unsuccessful efforts to find and develop new reserves, which may vary widely from year to year (Eldanfour, 2011). Under the FC method, these annual 'distortions' of income resulting from expensing the charges for unsuccessful pre-production activities are eliminated. Typically, as shown in the hypothetical Table 3.9 below, the SE firm reported an EBIT of £800 whereas the FC firm reported an EBIT of £1,100. This is because the SE firm expensed the sum of £300 as exploration costs while the FC firm amortises it over a ten year period.

Table 3.9: Comparison of Revenues under SE and FC Accounting Methods

Item	SE Accounting Method	FC Accounting Method
Revenue	2,000	2,000
Production and other costs	(700)	(700)
Exploration Costs	**(300)**	**0**
Depreciation and amortization	(200)	(200)
Total costs	1,200	(900)
EBIT	800	1,100
EBITDA	1,000	1,300

Source: Hypothetical figures created by the author

The object here is to show the impact of either expensing or capitalising the exploration costs on the EBIT of an Oil and Gas firm that uses either of the alternative method. Large Oil and Gas companies mostly favour the SE accounting method as a strategy to regulate their earnings (Baker, 1976; Al-Jabr & Spear, 2004) in order to minimise their tax obligation, whereas the capitalisation of both successful and unsuccessful costs of E&E in the FC method helps smaller Oil and Gas companies to boost their assets in order to attract investors (Abushaiba & Eldanfour, 2014). Companies that use the SE accounting method immediately post to the income statement as expenses all expenditures on dry holes thus reducing the profit figure, whereas companies that use the FC accounting method capitalise all E&E expenditures regardless of its success thus they are likely to present a higher profit figure (Agbude, 2013).

3.6: KEY ACCOUNTING STANDARDS IN THE OIL AND GAS SECTOR:

The biggest challenge facing the IASB presently is to come up with a substantive standard that provides complete guidance for all the activities in the extractive sector (KPMG, 2014). The IASC, the predecessor of the IASB started a research project with a view to finding a lasting solution to the controversies surrounding the FC and SE accounting methods vis-à-vis the recognition, measurement and classification of E&E assets of Oil and

Gas firms. Presently, the development and production activities in Crude Oil and Gas exploration and production are not comprehensively addressed by the IFRSs (Brady et al., 2009). The main objectives of the IASB research project is to analyze the unique financial reporting issues applicable to extractive activities and to identify a basis on which a financial reporting model might be developed to address these issues (IASB, 2010). However, despite committing enormous human and capital resources into this project, the IASB only succeeded in developing and issuance of a discussion paper in April 2010, on IFRS 6: *Exploration for and evaluation of mineral resources* (Brady et al., 2009; Elliot and Elliot, 2011). This is an interim standard issued by the IASB to provide guidance and allow entities adopting IFRSs to continue to apply their existing accounting policies to account for E&E expenditures (IASB, 2010). This is because IFRS 6 does not provide guidance beyond the E&E phases of Oil and Gas exploration and production. The absence of comprehensive IFRS literature has therefore, contributed to continuing divergence in the financial reporting of extractive activities around the world.

The equivalent standard to IFRS 6 under the NG-GAAP is the SAS 14: *Accounting in the Oil and Gas sector* (Upstream Activities). Other standards applicable to the Oil and Gas sector include IAS 16: *property, plant and equipment*, IAS 38: *Intangible assets*, IAS 36: *Impairment of assets*, IFRS 11: *Joint arrangements*, IFRS 12: *Disclosure of interest in other entities* and IFRIC 1: *Changes in the existing decommissioning, restoration and other similar liabilities*. The guidance of these standards on the recognition, measurement and classification of assets, liabilities, revenues and expenditures of Oil and Gas companies and the guidance provided by their GAAP equivalents are discussed below.

IFRS 6: Exploration for and Evaluation of Mineral Resources:

This accounting standard is very vital to the operations of Oil and Gas companies. It provides guidance to preparers of financial statements, auditors and other policy makers on the treatment of expenditures incurred in the E&E activities. The standard focuses only on the E&E phases of Oil and Gas production, as such does not provide guidance on the treatment of costs incurred beyond the E&E operation.

The activities of the petroleum industry are divided into three broad categories, upstream (offshore/onshore) exploration and production operations, Midstream and Downstream activities (onshore or on-land operations). Upstream activities involve acquisition of mineral rights in properties, exploration, development and production of Crude Oil and Gas. The Midstream operation involves the transportation (by pipeline, rail, barge, or truck), storage, and wholesale marketing of Crude Oil. The downstream sector mainly refers to the refining of Crude Oil and the processing and purifying of raw natural gas, as well as the marketing and distribution of products derived from Crude Oil and natural Gas. The downstream sector touches consumers through products such as gasoline or petrol, kerosene, jet fuel, diesel oil, heating oil, fuel oils, lubricants, waxes, asphalt, natural gas, and liquefied petroleum gas (LPG) as well as hundreds of petrochemicals. The midstream operations are often taken to include some elements of the upstream and downstream.

Mining activities mostly begin with the exploration and evaluation of an area of interest. If the exploration and evaluation is successful, a mine can be developed on the site and commercial mining production can commence. The phases before production begins can take many years and involve significant costs and most exploration and evaluation projects do not necessarily result in a mining operation. The appropriate treatment of these costs is

therefore critical. IFRS 6 was issued by IASB to provide an interim solution for the treatment of these exploration costs pending the outcome of the wider extractive industries project by the IASB (PwC, 2011). However, IFRS 6 does not apply to costs incurred once this phase is completed. Although, IFRS 6 allows an entity to continue to apply its existing accounting policy to account for the E&E costs (PwC, 2011). IFRS 6 provides that all expenditures incurred in exploration activities be expensed unless they meet the definition of an asset. An entity recognises an asset when it is probable that economic benefits will flow to the entity as a result of the expenditure. However, the treatment of E&E assets depends on the classification of the asset. Intangible E&E assets may include costs of exploration permits and licences while tangible E&E assets may include items of equipment and plants used for exploration activities. IFRS 6 requires entities recognising E&E assets to perform an impairment test on those assets when facts and circumstances suggest that the carrying amount of the assets may exceed their recoverable amount (KPMG, 2012). The impairment should be carried out in accordance with IAS 36: *Impairment of Assets* once it is identified (Deloitte, 2013)[14].

SAS 14: Accounting in the Petroleum Sector (Upstream Activities)

This standard was first issued in 1993 by the NASB to enhance the comparability of financial statements prepared by companies operating in the upstream sector of the petroleum industry in Nigeria (Barde, 2011). The standard basically deals with accounting and reporting for upstream activities which involve the acquisition of mineral interest in properties, exploration (including prospecting), development, and production of crude oil and gas. This standard provides guidance on how companies should account for costs incurred and how to dispose capitalised costs and guidance on costs of decommissioning operations. The standard

[14] *http://www.iasplus.com/en/standards/standard46*

also provides guidance on the application of FC and SE accounting methods. It is required that initial costs incurred relating to mineral rights acquisition, exploration, appraisal and development activities should be capitalized by FC firms. All capitalized costs (on country-wide basis) are to be depreciated on unit of production basis, using proved reserves. For firms using the SE method however, it is required that initial costs incurred prior to acquisition of mineral rights not specifically directed to an identifiable structure should be expensed in the period they are incurred; while all costs incurred relating to mineral rights acquisition, exploration, appraisal and development activities should be capitalized initially on the basis of wells, fields or exploration cost centres, pending determination and written off later if the well is dry.

SAS 17: Accounting in the Petroleum Sector (Downstream Activities)

This standard came into effect on January 1, 1998. The standard provides guidance on accounting practices and reporting formats to be followed by companies operating in the downstream sector of the Nigerian petroleum industry. The standard applies to companies in Refining and Petrochemicals, Marketing and Distribution and Liquefied Natural Gas. Downstream activities are activities that take place after the Oil and Gas has been produced. It involves the receipt of Crude Oil into tanks or Gas into petrochemical tanks, to the transportation of the Crude to the refineries, liquefaction of natural gas, refining of the Crude Oil, marketing and transportation of refined/liquefied products and derivatives to the final user. In the process of crude refining, catalysts[15] are added to the crude in order to speed up the cracking process (PwC, 2013). IFRS does not have a specific guidance on catalyst, but the principles of IAS 16 and IAS 2 are used to account for catalysts. Catalysts are expensed as consumed and accounted for as an inventory and recorded at the lower cost or net realisable

[15] *Catalysts are chemical substances which speed up chemical reaction, but are chemically unchanged at the end of the reaction.*

value. NG-GAAP requires catalysts to be separated into short- life (lasts less than a year) and long-life catalysts (lasts a year or over). The costs of short life catalysts are expensed in the year in which they are incurred while the costs of long-life catalysts are capitalised and written off over the life of the refinery (PwC, 2013).

IFRS provides that costs of major overhauls of refineries can be capitalised if the useful life of the PPE gets extended or its productive capacity is increased. SAS 17 requires the costs of turn-around maintenance (TAM) to be capitalised and amortised over the expected period before the next TAM. TAM in Nigeria is usually carried after every two years. Costs of spare parts and servicing equipment apart from major spare parts and standby equipment, are usually carried as inventory under IFRS and recognised in the profit or loss as consumed. Major spare parts and equipment qualify as PP&E when an entity expects to use them during more than one period (PwC, 2013). SAS 17 requires standby equipment and spare parts to be capitalised as part of PP&E and depreciated over the expected useful life of similar equipment in use. The costs of refining or petrochemical plant and equipment should be capitalised and depreciated on a straight-line basis over the useful life of the asset.

IAS 16: Property, Plant and Equipment

This standard prescribes the accounting treatment for property, plant and equipment (PPE) and provides guidance on how the items of PPE should be treated in the statement of financial position. IAS 16: *Property, plant and equipment* does not apply to the recognition and measurement of E&E assets of Oil and Gas companies. However, the standard applies to PPE used to develop or maintain the E&E assets used by entities in the extractives industry (BDO, 2013). PPE are tangible assets that have been acquired or constructed and held by an entity for use in the production or supply of goods and services and may include those held

for maintenance or repair of such assets and are not intended for sale in the ordinary course of business (PWC, 2011). The main issue of interest is how these assets are recognised, their carrying amount, the depreciation charges and their impairment losses.

The guiding principle of IAS 16 is applied immediately after the E&E phase of Oil and Gas production when the application and guidance of IFRS 6 cease to be relevant. When the technical feasibility and commercial viability of Oil and Gas production are established, E&E assets are no longer classified as deferred costs but tested for impairment under IAS 36: *Impairment of assets*, reclassified and accounted for under IAS 16 or IAS 38: *Intangible assets*. However, when it is determined that no commercial reserves are present, E&E costs initially capitalised should now be expensed. Items of PPE should be recognised as assets when it is probable that the future economic benefits associated with the assets will flow to the entity and the cost of the asset can be measured reliably. The recognition criteria of an item of PPE in IFRS are in line with that of NG GAAP. The measurement however consists of the initial purchase price including import duties and non-refundable purchase taxes, any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by the management, the initial estimate of the cost of dismantling the equipment and restoring the site on which it is located (PwC, 2011). The cost of an item of PPE is the cash price equivalent at the recognisable date. An item of PPE should be removed from the balance sheet when it is withdrawn from use and no further economic benefits are expected from its disposal. The equivalent standard to IAS 16 under the Nigerian GAAP is the SAS 3: *Accounting for property, plant and equipment* which is based on historical cost as opposed the fair values orientation of IAS 16. A comparison of the major standards applied by Oil and Gas companies in the preparation and presentation of their financial statements is provided in table 3.10 below.

Table 3.10: Comparison of IFRS and GAAP Standards for the Oil and Gas Sector

IFRS		GAAP	
Standard	**Guidance**	**Standard**	**Guidance**
IFRS 6: Exploration for and Evaluation of Mineral Resources	Temporary and limited in scope, FC and SE Accounting methods. Provides guidance on recognition, measurement and classification of E&E expenditures	**SAS 14:** Accounting in the Petroleum Sector (Upstream Operations) **SAS 17:** Accounting in the Petroleum Sector (Downstream Operations)	Acquisition of Mineral interest, E&E, G&G etc. Accounting practices and reporting formats to be followed by extractive sector companies
IAS 16: Property, Plant and Equipment	Measured at fair value, applied immediately after the E&E phase	**SAS 3:** Accounting for PPE	Historical Cost
IAS 38: Intangible Assets	Only recognise expenditures in the dev. Phase an intangible asset if the entity can demonstrate that the asset can generate future economic benefits	No Equivalent, closest is **SAS 22:** Research and Dev. costs	Does not provide guidance on R&D costs related to exploration and extraction of mineral resources
IAS 36: Impairment of Assets	Carrying value of an asset should not be more than recoverable amount **IFRS 6**: Only asses for impairment when facts and circumstances suggest that impairment exists.	No Equivalent, closest is **SAS 9:** Depreciation of assets	Costs of petrochemical equipment and costs associated with refining of petroleum products should be depreciated on a straight line basis over the useful life of the asset.
IAS 11: Joint Arrangements **IAS 12:** Disclosure of interest in other entities	Formally IAS 31	**SAS 28:** Investment in Associates **SAS 29:** Interest in Joint Ventures	Interest in JV shared at cost less provision for impairment
IFRIC 1: Changes in the existing decommissioning, restoration and similar liabilities **IAS 37:** Provision, Contingent liabilities and Contingent Assets	Recognises the PV of future cost as a liability and capitalised as part of PPE	**SAS 23:** Provision, Contingent liabilities and Contingent Assets	Recognises the estimated future cost less the expected salvage value of the dismantled equipment amortised over the duration of the project
IAS 2: Inventories	Spare parts and servicing equipment are carried as inventory and recognised in the P&L as consumed	**SAS 4:** On Stocks	Historical Cost, spare parts and standby equipment are capitalised as part of the PPE, REF: SAS 17

Created by the Researcher

IAS 38: Intangible Assets

Intangible asset as defined by the IFRS is an identifiable (separable and arises from contractual or legal rights) non-monetary asset without physical substance. This asset may be acquired or internally generated by the business. An intangible asset is recognised only if it is probable that the expected future economic benefits that are attributable to the asset will flow to the entity; and the cost of the asset can be measured reliably. NG-GAAP only provides guidance on research and development, based on the provision of SAS 22: *On research and development costs*. This standard prescribes the accounting treatment for research and development costs and is expected to provide an acceptable and uniform accounting practice for entities that engage in research and development activities whether for product/service development or as a grant to research entities for related purpose. The standard provides no guidance on identifying intangible assets or how to account for them after the acquisition date. IAS 38 however, requires intangible asset to be recognised separately from goodwill if it represents contractual or legal rights or is capable of being separated or divided and sold, transferred, licensed, rented or exchanged. Research and development activities engaged by Oil and Gas companies and the costs associated with these activities hitherto accounted for based on the provision of SAS 22 will now be accounted for based on the provision of IAS 38. IAS 38 provides that all intangible assets be measured at cost while internally generated goodwill shall not be recognised as an asset and expenditure arising from research and development shall be expensed as incurred.

IAS 36: Impairment of Assets

The objective of *IAS 36: Impairment of assets* is to ensure that assets are not carried at values that are more than their recoverable amount. An asset is carried at more than its recoverable amount if its carrying value, or value recorded in the company's books exceeds

that amount to be recovered through use or disposal of the asset. If this happens, the asset is described as impaired and *IAS 36* requires the recognition of an impairment loss in the P&L account of the company. The standard applies to (among other assets) land, buildings, machinery and equipment, investment property carried at cost, intangible assets, and assets carried at revalued amounts under IAS 16 and IAS 38. IAS 36 does not apply to inventories, deferred taxes, financial assets and assets held for sale in accordance with IFRS 5. There is no equivalent standard that provides guidance on Oil and Gas assets impairment under the NG-GAAP. However, *SAS 9: depreciation* is the closest standard that provides guidance on depreciation and requires Oil and Gas assets to be depreciated on a straight line basis annually. However, due to the inherent difficulties in obtaining the information necessary to estimate the future cash flows from exploration and evaluation assets, *IFRS 6: exploration for and evaluation of mineral resources* introduces an alternative impairment testing regime for E&E assets of Oil and Gas companies that differs from the provision and general requirements for impairment testing set out in IAS 36. IFRS 6 requires that an entity assesses for impairment only when facts and circumstances suggest that impairment exists. Under this standard, an asset is said to be impaired when, (i) exploration rights (PEL, OML) in an area have expired or will expire in the near future and are not likely to be renewed, (2) when no further exploration or evaluation is planned or budgeted for, (3) when the company decides to discontinue exploration and evaluation because there is no likelihood of commercial reserves or when, (4) there is sufficient data to indicate that the book value will not be fully recovered from future development and production (KPMG, 2012).

However, impairment of development costs is based on the guidance and principles of IAS 36. An asset (wells, equipment and facilities) should be tested for impairment when 'trigger events' like; a significant downward movement in commodity prices which results in operating cash losses and a decline in market value happen. When the technology in use for

oil and gas exploration is obsolete, existence of imminent competition, a physical damage to the asset, a significant change in government policy in the operating environment or a significant adverse effect on the company that will change the way the asset is used or expected to be used (KPMG, 2012). Companies are required to text for impairment of goodwill at least on annual basis irrespective of whether indictors of impairment exist (KPMG, 2012). The guidance provided by IFRS 6 for asset impairment is similar to that of NG GAAP, although there is no specific standard on impairment under the NG GAAP. FC accounting firms are required under the NG GAAP to perform a ceiling test at least annually on a country wide basis. Such tests should include the discounted values for revenues, costs, estimated future taxes and estimated future development costs. For SE accounting method, the net book value of undepreciated mineral rights acquisition costs should be tested annually for impairment on a well-by-well basis (PwC, 2013)

The application of this standard is particularly important to companies using the FC accounting method, where companies recognise all E&E expenditure as an asset. The company might be carrying a significant amount on the balance sheet in respect of projects for which the outcome is highly uncertain (PwC, 2011).

IAS 31: Interest in Joint Ventures (superseded by IFRS 11: Joint Arrangements and IFRS 12: Disclosure of Interests in Other Entities, effective 1/1/2013

IFRS defines joint venture as a contractual agreement whereby two or more parties undertake an economic activity that is subject to joint control. This standard provides guidance on three types of joint venture, 1) jointly controlled entities, 2) jointly controlled assets and 3) Jointly controlled operation. The jointly controlled entity is a joint arrangement that is carried out through a separate legal entity (company or partnership). Companies are allowed an accounting policy of either to account for their interest using the proportionate

consolidation method or the equity method. KPMG survey of 2009 on the application of IFRS reported that over half of oil and gas companies in joint arrangements applied proportionate consolidation, with the remainder using the equity method. Jointly controlled assets and jointly controlled operations however, are joint ventures that are not separate legal entities, therefore, recognise the assets and liabilities that they control and the costs incurred and income received in relation to the arrangement.

The standard has been providing guidance to companies to account for these activities until the end of January 2012. A new standard IFRS 11, *Joint arrangements* and IFRS 12, *Disclosure of Interests in Other Entities* issued in May 2011 by the IASB, with effective application periods beginning on or after 1st January 2013, have now superseded the IAS 31. IFRS 11 which is more specific to the oil and gas sector provides guidance on two categories of Joint arrangements, 1) Joint ventures and 2) Joint operations. In Nigeria however, two standards, SAS 28: *Investment in Associates* and SAS 29: *Interest in Joint Venture* provides similar guidance. SAS 28 provides specific requirements on accounting for associates in the consolidated financial statements under the equity method and the disclosures required. While SAS 29 establishes guidelines as to the scope of accounting for interests in Joint Ventures, the alternative methods that might be adopted and the limited circumstances under which interests in Joint Ventures might be accounted for at cost, less any provision for impairment (FRC, 2011).

IFRIC 1: Changes in existing decommissioning, restoration and similar liabilities, IAS 37: Provisions, contingent liabilities and contingent assets

The obligation by oil and gas exploration and production companies to dismantle, remove and restore items of PPE at the end of the exploration and production activities is referred to as decommissioning exercise. IAS 16: Property, Plant and Equipment, provides that the costs of an item of PPE includes the initial estimate of the costs of dismantling and

removing the item and restoring the site on which it is located, the obligation for which an entity incurs either when the item is acquired or as a consequence of having used the item during a particular period for purposes other than to produce inventories during that period. The treatment of decommissioning expenditure under IFRS differs from the treatment under the NG-GAAP. IFRS **(***IFRIC 1): Changes in existing decommissioning, restoration and similar liabilities* recognizes the PV of the future cost of decommissioning of Oil and Gas installations and environmental rehabilitation as a liability and the corresponding costs capitalized as part of the related PP&E. Whereas NG-GAAP recognises the estimated future costs of decommissioning less the expected salvage value of the dismantled equipment amortised over the useful life of the equipment. Under the NG - GAAP (SAS 23): *Provisions, contingent liabilities and contingent assets* requires Oil and Gas firms to make provision for the abandonment of their offshore installations and environmental restoration costs less the estimated salvage values of the assets/equipment based on the best availability estimate. The effects or otherwise of the different treatments of decommissioning expenditures under NG-GAAP and IFRS would be revealed at the end of this research.

3.7: IMPACT OF IFRS ADOPTION ON FINANCIAL STATEMENTS OF OIL AND GAS COMPANIES

Over the past two decades a number of researchers have sought to determine the impact of the transition from GAAP to IFRS on the financial statements of listed entities in various jurisdictions around the world. So far however, far little attention has been paid to the impact of the adoption of IFRS on the financial statements of extractive sector listed entities. In addition, no research has been found that investigated the impact of the adoption of IFRS on the financial statements of listed Oil and Gas companies despite the fact that Crude Oil and Gas exports account for over 90% of foreign exchange earnings in some countries (World Bank, 2015). It is on this basis that this study sought to investigate the effects of the

adoption of IFRS on the financial statements of Nigerian listed Oil and Gas companies. Majority of the previous studies have only focused on the impact of the adoption of IFRS on the accounting quality of listed entities by analyzing the accounting quality metrics of earnings management, timely loss recognition and values relevance of accounting information. So far however, far too little attention has been paid to the impact of the transition from GAAP to IFRS on the financial statements of listed Oil and Gas companies. The Oil and Gas sector is distinguished from other sectors in terms significant amount of exploration and evaluation expenditures, decommissioning expenditures, the contractual relationships between Oil and Gas companies and their host governments and the overall risks involved in the exploration and production of hydrocarbon resources.

This study therefore sets out to assess the impact of the adoption of IFRS on the financial statements of listed Oil and Gas companies in terms of the Key Performance Indicators of Oil and Gas companies, Exploration and Evaluation expenditures, Provision for decommissioning of Oil and Gas installations and environmental rehabilitation expenditures, the contractual relationships between Oil and Gas companies and the Nigerian Government and the impact of IFRS adoption on accounting quality, ease of audit, ease of preparation and presentation of the financial statements and the ease of comparison of the financial statements among competitors across the Oil and Gas sector. The differences in the application of GAAP and IFRS standards in the Oil and Gas sector are discussed as follows.

3.7.1: Exploration and Evaluation (E&E) Expenditures

Exploration and Evaluation (E&E) expenditures are those costs that are incurred by an Oil and Gas entity in connection with the exploration for and evaluation of mineral resources before the technical feasibility and the prospect of extracting commercially viable quantities of oil, natural gas and similar non-regenerative resources are established (Wright & Gallun,

2008; Elliot & Elliot, 2011). The E&E costs can be categorized into pre-exploration costs, exploration and evaluation (E&E) costs and development costs. Generally, all the E&E costs associated with identifying new reserves are capitalized. However, if the exploration of new reserves turns out to be unsuccessful (dry hole), the dry hole costs can either be expensed as incurred under the SE accounting method or capitalized to be amortized over the subsequent periods as required by FC accounting method.

Both IFRS and NG-GAAP allow companies to choose between SE and FC to account for their E&E expenditures. However, differences exist between the two standards in terms of treatment of costs. Whereas IFRS 6: *Exploration for and Evaluation of Mineral Resources* allows capitalization of E&E costs only, NG-GAAP standard SAS 14: *Accounting in the Petroleum Industry (Upstream Activities)* requires under the FC method, costs incurred on mineral rights acquisition, exploration, appraisal and development activities be capitalized irrespective of whether or not the activities resulted in the discovery or reserves. Such costs are usually amortized against successful finds on gross revenue or unit of production basis. Whereas, under the SE method, costs incurred prior to the acquisition of mineral rights and other exploration activities not specifically directed to an identifiable structure should be expensed when incurred. The immediate expensing of the E&E costs under the SE method will have a significant impact on the financial statement by causing volatility in reported profits (Zori, 2011; Elliot & Elliot, 2011)[16]. Under the FC method however, depreciation and amortization are more predictable, hence provides a sound forecasting basis for earnings. Large Oil and Gas firms mostly favor the SE method in order to minimize their tax obligation whereas; small Oil and Gas firms apply the FC method in order to boost their assets (Malmquist, 1990). This assertion and a proof with hypothetical figures were presented in section 3.5.2, table 3.9.

[16] *http://solomonzori.blogspot.co.uk/2011/09/accounting-for-exploration-evaluation.html*

This study aims to contribute to this growing area of research and void the existing knowledge gap in literature by exploring the impact of the adoption of IFRS on the exploration and evaluation expenditures of Oil and Gas companies. Based on these objectives, the following research question was formulated.

Question 1. To what extent does the adoption and implementation of IFRS affect the Exploration and Evaluation (E&E) expenditures of listed Oil and Gas companies?

In order to adequately address the above research question taking into consideration both the Nigerian and African listed Oil and Gas companies, four null hypotheses (H_{01} - H_{04}) will be developed and tested and the results presented and discussed in Chapter Six of this thesis.

3.7.2: Decommissioning Expenditures

The onshore/offshore operations of Oil and Gas exploration and production companies can have a significant impact on the environment. Decommissioning is the act of dismantling, removal, taken service or disassembling of redundant Oil and Gas installations like rigs, pipes etc. In circumstances where certain Oil and Gas structures cannot be removed, an exceptional case of derogation can be made. In accordance with US GAAP (SFAS No.143: *Accounting for asset retirement obligations*), IFRS (IAS 37: *Provisions, contingent liabilities, and contingent assets*) and IFRIC 1: *Changes in the existing decommissioning, restoration and similar liabilities* require decommissioning costs to be recognized in the balance sheet when a company has an obligation to dismantle and remove a facility or an item of plant and to restore the site on which it is located, and when a reasonable estimate of that liability can be made.

In Nigeria, CAP P10 paragraph 36, Laws of the Federal Republic of Nigeria provides that all abandonment programmes have to be approved or agreed by the head of the

Petroleum inspectorate. There is a legal requirement for extractive sector entities to remove all exploration installations and rehabilitate the damage done to the environment. In the UK however, the Department for Energy and Climate Change (DECC) is the body that regulates decommissioning of offshore Oil and Gas installations and pipelines under the Petroleum Act of 1998[17]. It was estimated that about £4.5billion is expected to be spent on decommissioning assets on UK continental shelf from 2012 to 2017 (Oil and Gas UK, 2012). Oil and Gas exploration and production companies are required by law, the terms of operating licences or an entity's stated policy and past practice to carry out decommissioning or environmental restoration work at the end of Oil and Gas exploration and production exercise or at the end of the useful life of a plant and other installations. These requirements are provided in Article 60 (3) of United Nations Convention on the Law of the Sea (UNCLOS, 1982), which came into force in 1992, the International Maritime Organisation (IMO) guidelines of 1989 and the Oslo and Paris Convention (OSPAR, 1999) for the Protection of the Marine Environment of the North East Atlantic. An entity that promises to remediate damage, even when there is no legal requirement, may have created a constructive obligation and thus a liability under IFRS. There may also be environmental clean-up obligations for contamination of land that arises during the operating life of a refinery or other installation.

There are two types of decommissioning activities; the onshore decommissioning and offshore decommissioning. In Nigeria however, no decommissioning of offshore structures has taken place yet and to that extent, offshore decommissioning is a future event (Adedayo 2011; Azaino, 2012).

The different accounting treatment of decommissioning costs under different accounting regimes will have a significant impact on a firm's financial statement. Under

[17] *https://www.gov.uk/oil-and-gas-decommissioning-of-offshore-installations-and-pipelines*

IFRS (IFRIC 1 and IAS 37) the present value of the future costs of dismantling, removing or restoring an Oil and Gas field as a result of a legal or constructive obligation is recognised as a liability and the corresponding cost capitalised as part of the related PPE. Under the NG-GAAP, SAS *23: Provisions, contingent liabilities and contingent assets* however, entities are required to make provision for an estimated cost of decommissioning and restoration less the expected salvage values of the equipment based on the best availability estimate by either of the following:

• A charge against income on a systematic basis over the full productive lives of the facilities concerned so that the accumulated provision will cover the cost of restoration or abandonment; or

• Recognising the eventual liability at the outset; the corresponding debit should be treated as a capital cost to be depreciated using the units-of-production basis.

To date there has been no reliable evidence in literature that shows the impact of the transition from GAAP to IFRS on the provision for decommissioning of Oil and Gas installations and environmental rehabilitation expenditures of Oil and Gas companies. The present research explores, for the first time, the effects of the adoption and implementation of IFRS on the provision for decommissioning of Oil and Gas installations and environmental rehabilitation expenditures of Oil and Gas companies. It is on this basis that the following research question was formulated.

Question 2. Are there any significant changes in the provision for decommissioning of Oil and Gas installations and environmental rehabilitation expenditures of Oil and Gas companies before and after the adoption and implementation of IFRS?

In order to adequately address the above research question and fill the existing knowledge gap in literature regarding the impact of the transition from GAAP to IFRS on the provision for decommissioning of Oil and Gas installations and environmental rehabilitation

expenditures of listed Oil and Gas companies in Nigeria and other African countries, four null hypotheses (H_{05} - H_{08}) will be developed and tested and the results presented and discussed in Chapter Six of this thesis.

3.7.3: Average Daily Crude Oil Production Cost per Barrel

The upstream and downstream sectors are the two principal sectors of Crude Oil and Gas exploration and production. However, there are four fundamental phases recognised by Oil and Gas companies in the production of Crude Oil and Gas resources as discussed in section 4.4 of this chapter. These phases consist the acquisition phase, the exploration phase, development phase and the production phase. The total cost incurred by Oil and Gas companies to produce Crude Oil and Natural Gas are made of lifting and finding costs. Finding costs are the costs incurred in the acquisition of properties where proven or probable reserves of hydrocarbon resources are present, site development costs and exploration costs. While lifting costs are the costs to operate and maintain Oil and Gas wells and related equipment and facilities to bring the Oil and Gas to the surface (EIA, 2014). All the costs necessary to bring the crude Oil and Gas resources available for consumption or export are referred to as upstream costs.

The amount incurred by Oil and Gas companies to produce a barrel of Crude Oil is influenced by the location of the exploration and production activity (Onshore or Offshore). According to BP Statistical Review 2015, offshore upstream costs are significantly higher than onshore upstream costs (BP, 2015). For example, in the UK the amount incurred by Oil and Gas companies to produce a barrel of Crude Oil from the unstable and turbulent North Sea is significantly higher than incurred by Oil and Gas companies in Libya or any of the Middle East countries where most of the crude Oil and Gas exploration and production are performed onshore. Likewise, it is cheaper to explore and produce hydrocarbon resources in

the onshore Niger Delta region of Nigeria than in the coastal offshore or the deep waters. Although, recently majority of the Crude Oil producing companies have reduced their presence in the Niger Delta region because of militant operations despite the low cost of production.

Several studies have been conducted recently to investigate the impact of the adoption and implementation of IFRS on the accounting numbers and performance measures of listed companies. However, much of the literature investigating this phenomenon emphasised on the accounting quality and comparability of the GAAP and IFRS financial statements. No particular attention has been paid on the implication of the adoption of the policy on the average daily crude oil production cost per barrel. A recent report by the US Energy Information Administration (EIA, 2013) however, shows that the Average production cost per barrel of Crude Oil equivalent in the United States was $40, $17 in the Middle East, $50 in Canada, $25 in Venezuela, $40 in Angola, $50 in Russia, over $70 in Brazil and about $10 in Saudi Arabia and can reach up to $40/barrel in Angola (EIA, 2013; CNBC Report, 2015). So far there has been no detailed empirical investigation of the impact of the adoption of IFRS on industry specific performance measures of Oil and Gas companies like the average daily crude Oil production cost per barrel. One of the core objectives of this research study is to examine whether there are any significant differences on the average daily crude Oil production cost per barrel after the transition from GAAP to IFRS. It is on this basis that the following research question was formulated.

Question 3. Does the adoption and implementation of IFRS have any significant impact on the Average Daily Crude Oil production cost per barrel of Oil and Gas companies?

In order to adequately investigate and address this formulated research question while incorporating the Nigerian and African listed Oil and Gas companies, four null hypotheses

(H_{09} - H_{012}) will be developed and tested and the results presented and discussed in Chapter Six of this thesis.

3.7.4: Key Performance Indicators (KPIs)

For the purpose of this research, key performance indicators (KPIs) refer to the accounting numbers and financial ratios of Oil and Gas companies like the profitability measures, liquidity and gearing measures mostly used by firms to determine their financial strengths, weaknesses and ability to honor their obligation as they fall due. Considerable differences exist across countries in the accounting treatment of many of these items and how they are recognized on the balance sheet. Differences in accounting system can result in significantly different amounts being reported on the balance sheet and income statement. The accounting standards in various jurisdictions give different guidance in respect of recognition, treatment and measurement of balance sheet and income statement items. When a country transitions from the local GAAP to IFRS, it expected that all listed entities would embrace and apply the new set of standards for their end of year financial reporting.

Previous studies have demonstrated that the adoption and implementation of IFRS significantly affect the accounting numbers and financial ratio of listed companies. A study conducted by Lantto and Sahlstrom (2007, 2009) on the impact of IFRS adoption on key financial ratios of Finnish listed firms, shows that the adoption of IFRS changes the magnitude of the key accounting ratios of Finnish listed companies. Profitability ratios increase by 9-19% and the price-to-earning (PE) ratios decrease by 11%, gearing ratios increase by 2.9% while equity ratios decrease by 0.2%. Punda (2011) based his study on Lantto and Sahlstrom (2007, 2009) and examined the effects of IFRS adoption on key financial ratios of UK listed firms. He reported a substantial change in the KPIs of these firms post IFRS adoption. All the three profitability ratios significantly increased: Operating Profit

Margin (OPM) increased by 10.8%, Return on Equity (ROE) 27.0% and Return on Invested Capital (ROIC) by 11.4%. However, current ratio (CR) and price-to-earning (P/E) ratios have not shown such significant change, but still changed by 4.2% and -2.9% respectively. Iatridis (2010) reported an unfavorable effect on Greek listed firms in terms of profitability and liquidity as a result of IFRS adoption in the official adoption period (2005). However, in 2006, firms reported better financial performance measures in terms of profitability and future growth prospects, perhaps because they became more familiar with and adjusted to IFRS.

A study conducted by Kabir (2010), shows the adoption of IFRS by New Zealand private sector entities led to an increase in total assets, total liabilities and surplus. Tsalavoutas and Evans (2010) reported a positive impact on shareholder's equity and net profit of Greek listed firms as a result of IFRS adoption. However, it had a negative impact on gearing and liquidity. Hung and Subramanyan (2007) investigate the effect of IFRS adoption on the financial statement of German listed firms. They reported that the total assets and book values of equity as well as variability of book value and net income are significantly higher under IFRS than the under the German GAAP.

More recently, Blanchette et al. (2011) examined the impact of transition from Canadian GAAP to IFRS on financial ratios in the areas of liquidity, leverage, coverage and profitability. They reported a significantly higher volatility to most of the ratios under IFRS when compared to those derived under pre-changeover Canadian GAAP. Similar study conducted by Georgakopoulou et al. (2008, 2010) examined the impact of IFRS adoption on thirty nine Greek industrial firms. They compared the accounting numbers of these firms under Greek GAAP and IFRS in the transition year 2004. They reported that the asset turnover ratio (ATO), ratio of owner's equity to total assets, ratio of total liabilities to total

equity and return on net worth differ significantly under the two regimes. Georgakopoulou et al. (2010) and Pazarskis et al. (2011), conducted a similar study on the effects of IFRS adoption on Greek listed food and beverages firms from 2004 - 2006, their results show that shareholder's equity, total assets and total liabilities are higher under IFRS compared to under Greek GAAP period. They however used 2002 -2004 as the pre-adoption period and 2004 - 2006 as their post adoption period. They argued that the year 2004 is the transition period and companies are required to produce financial reports according to IFRS and Greek GAAP. A similar study conducted by Ballas et al. (2010) on the effect of IFRS on Greek listed firms using mixed methods showed that IFRS adoption has significantly improve the quality of financial reporting in Greece, in terms of reliability, transparency and comparability of financial statements.

In a recent paper, Tanko (2012) reported that firms in Nigeria (some selected banks) under IFRS tend to exhibit higher values on a number of profitability measures such as EPS. Other published studies also exist on the general implications of IFRS adoption in Nigeria like Madawaki (2011), Okpala (2012) and Abata (2015). However, I would argue that these studies were mostly descriptive in nature and the expositions are unsatisfactory and cannot be substantiated. It is based on these inconsistencies that the following research question was formulated.

Question 4. Are there any significant differences between the Key Performance Indicators (KPIs) of listed Oil and Gas companies before and after the adoption and implementation of IFRS?

In order to address the above formulated research questions and make contributions to literature and body of academic knowledge regarding the impact of the adoption and implementation of IFRS on the KPIs of listed Oil and Gas companies in Nigeria and Africa,

four null hypotheses (H_{013} - H_{016}) will be developed and tested and the results presented and discussed in Chapter Six of this thesis.

3.7.5: Contractual Relationships - Joint Ventures (JVs) and Production Sharing Contracts (PSCs)

The contractual relationships between international Oil and Gas companies (IOC) and host governments are governed by the newly issued IFRS 11: *Joint Arrangements* and IFRS 12: *Disclosure of Interests in Other Entities.* IFRS 11 prescribes the accounting for joint arrangement: the contractually agreed sharing of control of an arrangement which exists only when the decisions about the relevant activities require the unanimous consent of the parties sharing control (EY, 2011). These arrangements are used by Oil & Gas companies as a way to share the higher risks and costs associated with the industry or as a way of bringing in specialist skills to a particular project (PWC, 2011).

IFRS 11 prescribes two types of Joint Arrangement: joint operations' and 'joint ventures'. Each type of joint arrangement is aligned with a specific accounting requirement. A party to a 'joint operation' recognizes assets, liabilities, revenues, expenses arising from the arrangement and/or its relative shares thereof, if any. whereas, a party to a 'joint venture' recognizes an investment and must recognize in its financial statement its share of the jointly controlled assets, classified according to the nature of the assets, any liabilities that it has incurred, its share of any liabilities incurred jointly with the other venturers in relation to the joint venture, any income from the sale or use of its share of the output of the joint venture, together with its share of any expenses incurred by the joint venture; and any expenses that it has incurred in respect of its interest in the joint venture. Each venturer must also recognize its share of any liability associated with decommissioning activities. The joint venture is required to apply equity accounting to account for this investment. This method requires that

all investment in Jointly Controlled Entities (JCE) be initially recognized at cost. Under the NG-GAAP, SAS 28: *Investment in Associates* and SAS 29: *Interest in Joint Ventures* are the two standards that provided guidance in respect of joint ventures.

The impact of the transition from GAAP to IFRS on the contractual relationships between Oil and Gas companies and the Nigerian government will be measured in terms of taxes, royalties and profit Oil split.

Taxes, Royalties and Profit Oil Split

The adoption of IFRS in Nigeria is predicted to greatly impact the system and administration of the country's taxation. Taxation in the Oil and Gas sector is regulated by the Petroleum Profits Tax Act Cap P13 LFN 2004 (PPTA). However, the legislative framework relating to the Oil and Gas industry is currently being overhauled and is likely to have a significant impact on the Nigerian Oil and Gas sector. The draft of the Petroleum Industry Bill (PIB) aimed at restructuring the entire Oil and Gas sector has just been passed into law by Nigerian National Assembly. The bill contains recommendations on the current taxation regimes, improved economies for small onshore developments, review of JVs and PSCs and an amended royalty, bonuses and profit oil structure.

Petroleum taxes generally fall into two main categories – those that are calculated on profits earned (income taxes) and those calculated on sales (royalty or excise taxes). In Nigeria, the profits of the oil producing companies are chargeable to tax under the PPTA and are also governed by the terms of any relevant memorandum of understanding or PSC. The tax rate under the PPTA is 85% for JV companies and 50% for PSC companies operating in deep offshore sites. However, a special rate of 65.75% applies when a company has not yet started the sale or bulk disposal of chargeable oil under a programme of continuous production, and all preproduction capitalized costs have not been fully amortized (Ajayi,

2013). Capital allowances are charged at the rate of 20% per annum in the first four years of production, 19% in the fifth year and the remaining 1% retained in the books of the company. Firms in PSCs are however, entitled to an investment tax credit of 5%. Royalty is payable in ranges from 0 – 20% of production, depending on the location and depth of the area of production. Other taxes and levies in the oil and gas sector include the education tax at 2% and the Niger Delta Development Commission (NDDC) levy at 3%. VAT is generally applicable to oil and gas operations at a flat rate of 5%. The classification and treatment of taxes under different accounting regimes is expected to significantly impact on the company's financial statement.

In order to investigate the impact of the transition from GAAP to IFRS on the contractual relationships between Oil and Gas listed companies and the Nigerian Government, the following research question was formulated.

Question 5. To what extent does the adoption and implementation of IFRS affect the contractual relationships between Oil and Gas companies and the Nigerian Government in terms of Joint Ventures (JVs) and Production Sharing Contract (PSCs) as it relates to taxes, royalties, bonuses and Profit Oil Split?

In order to address the above formulated research question, questionnaires will be administered to key stakeholders in the adoption and implementation of IFRS in Nigeria and their views sought and analysed. The results of the questionnaire analysis will be presented and discussed in Chapter Seven of this report.

3.7.6: Accounting Quality, ease of auditing, ease of preparation and presentation of financial statements and ease of comparison of the financial statements among competitors across the Oil and Gas sector.

A considerable amount of literature has been published on the impact of the transition from GAAP to IFRS on accounting quality of listed companies. Majority of these studies have investigated the impact in terms of accounting quality metrics of earnings management, timely loss recognition and value relevance of accounting information. For example, Barth et al., (2008) examined the accounting quality of 411 firms from Germany, Switzerland and China. They reported that after IAS adoption, firms evidence less earnings management (income smoothing), more timely loss recognition and more value relevance of accounting data than firms that do not adopt, suggesting that IAS adoption is associated with an improvement in accounting quality. Similarly, Morais and Curto (2009) compared the accounting quality of Portuguese listed companies before and after the adoption and implementation of IFRS in Portugal. They reported less earnings smoothing, which reflects an improvement in accounting quality of the firms investigated. More recently, Paiva and Lourenco (2010) examined the earnings management constructs used to asses accounting quality of listed firms on UK and French firms; they reported that large firms have lower earnings management under the IFRS compared to their earnings management under the UK GAAP. Outa (2011) applied a similar approach to Barth et al. (2008) on Kenyan listed firms and reported a marginal increase in the accounting quality of listed firms under the IFRS. Following the mandatory IFRS adoption in 2005, Chua et al. (2012) examined its impact on the accounting quality of Australian listed firms. They reported that the mandatory adoption of IFRS has resulted in better accounting quality than under the previous Australian GAAP. The pervasiveness of earnings management by way of income smoothing has reduced while the timeliness of loss recognition has improved and the values relevance of financial statement information has improved after the adoption of IFRS. Bartov et al. (2005) and Hung and Subramanyam, (2007) investigated the value relevance of financial reporting of German companies in the late 1990s and the early 2000s. Their results reveal that the

earnings reported under US GAAP and IAS is more value relevant compared to German GAAP.

However, a study conducted by Van Tendeloo and Vanstraelen (2005) reported no difference in earnings of management of firms that reported under IFRS compared to firms that reported under the German GAAP. Similarly, Goncharov and Zimmerman (2006), examine the prevalence of earnings management before and after the adoption of IFRS in Germany. The study finds no change in the earnings management behaviour. Contrary to these results, Paananen (2008) reported a decrease in the accounting quality of listed firms in Sweden after the adoption of IFRS in 2005. Ernstberger and Vogler (2008) show that the cost of capital for German firms fell significantly for those that adopted IFRS or US GAAP instead of German accounting from 1998 to 2004. Leuz and Verrecchia (2000) use German data from 1998 to examine the effect of IFRS or US GAAP adoptions on the information asymmetry using the effect on the bid-asked spread, the trading volume, and the volatility of returns as proxies. They find that firms adopting an international GAAP such as IFRS or US GAAP decrease the bid-asked spread and increase the trading volume, which is interpreted as a decrease in the market information asymmetry.

Based on the results from the various studies, it can be presumed that the transition from GAAP to IFRS generally improves the accounting quality metrics of listed firms in terms of less earnings management, more timely loss recognition and more value relevance of accounting data. However, to my knowledge, there is no available literature that investigated the impact of the adoption of IFRS on the accounting quality of listed Oil and Gas companies. Moreover, there is no existing literature on the impact of the adoption and implementation of IFRS on the ease of preparation and presentation of the financial

statements, ease of audit and ease of comparison of IFRS based financial statements among competitors across the Oil and Gas sector.

Therefore, this study intends to contribute to the existing literature regarding the impact of IFRS adoption on accounting quality of listed firms and to void the existing knowledge gap regarding the impact of the transition from GAAP to IFRS on the ease of preparation of IFRS financial statements, ease of audit of IFRS based financial statements compared to GAAP based financial statements and the ease of comparison of the financial statements among competitors across the Oil and Gas sector. In order to make this contribution, the following research question was formulated.

Question 6. To what extent does the adoption and implementation of IFRS affect the ease of preparation and presentation of Oil and Gas company financial statements, ease of audit of the financial statements, quality and comparability of the financial statements among competitors across the Oil and Gas sector?

To enable this study to address the above formulated research question, views of the key stakeholders in the adoption and implementation of IFRS in the Oil and Gas sector will be sought through questionnaires. The questionnaire responses will be analyzed and the result of the analyses presented and discussed in chapter six of this thesis. The next section will discuss the theoretical framework and the various theories underpinning the study in respect of the transition from GAAP to IFRS on the financial statements of Oil and Gas companies.

3.8: THEORETICAL FRAMEWORK

Several researchers and literary thinkers have attempted to define theory and theoretical framework. However, to date, there are no precise definitions of theory as argued by Flinders & Mills, (1993). Attempts have been made by business professionals, researchers, social scientists, philosophers and other academics to describe the exact nature of theory. In

1974, Argyris and Schon (1974:4-5) referred to theory as "a set of interconnected propositions that have the same referent. In a similar manner, theory has been described by Sutherland (1976:9), reported by Wacker (1998) as "an ordered set of assertions about a generic behavior or structure assumed to hold throughout a significantly broad range of specific instances". In a similar vein, Silver (1983) conceptualized theory as a unique way of perceiving reality, an expression of someone's profound insight into some aspect of nature, and a fresh and different perception of an aspect of the world. She purported that formal definitions of theory rob it of its beauty, its emotional significance and its importance to everyday life. While in 1986, Kerlinger (1986:9) defined theory as "a set of interrelated constructs, definitions and propositions that present a systematic view of phenomena by specifying relations among variables, with the purpose of explaining and predicting phenomena". Bacharach (1989) described theory as a system of constructs and variables in which the constructs are related to each other by proportions and the variables are related to each other by hypotheses. More recently, Theory in the context of social science has been referred to as a statement of relationships between units observed or approximated in the empirical world (Wacker, 1998). Strauss (1995) however, argued that theory provides a model or map of why the world is the way it is. He further explained that whereas theory is a simplification of the world, it nonetheless is aimed at clarifying and explaining some aspect of how the world works.

In accounting literature, theory has been defined by Rimawi (2007) as a set of basic concepts and assumptions and related principles that explain and guide the accountants' action in identifying, measuring and communicating economic information about companies to interested parties.

There are basically two schools of thought on accounting research (Cortese, 2010); the Positive-inductive and Normative-deductive. The Positive-inductive school of thought emphasizes on the development of accounting principles and defines accounting theory as a logical reasoning in the form of a set of broad principles that provides a general frame of reference by which accounting practice can be evaluated. Accounting theory according to this school of thought therefore, guides the development of new practices and procedures (Hendriksen, 1982). It is the basic assumptions, definitions, principles and concepts that guide accounting rule making. The Normative-deductive school of thought however, views accounting theory with the primary objectives of providing a basis for the prediction and explanation of accounting behavior, events and practices (Adere, 2011). This school of thought considers accounting theory as an attempt to evaluate accounting practices.

Several different theoretical approaches have been applied by accounting and finance researchers in explaining the impact of accounting policy changes on the financial statements of listed entities. Prominent among these theories are the institutional theory, agency theory, stakeholder theory, legitimacy theory, positive accounting theory, decision usefulness theory and power-capture theory. The application of these theoretical frameworks is justified by the nature of the phenomena being investigated.

The Oil and Gas sector is probably the most complex sector in terms of the risks involved in the exploration and production of hydrocarbon resources and the ultimate reward in terms of the proceeds from the sale of the Crude Oil and Gas produced. This research investigates the impact of IFRS adoption on the financial statements of Oil and Gas companies and the relationships between Oil and Gas sector and the host governments in terms of JVs and PSCs. Based on the nature of the Oil and Gas sector and the core objectives of this research, the following theoretical frameworks will be considered in explaining the

impact of accounting policy changes on the financial statements of listed Oil and Gas companies.

The Institutional Theory:

Institutionalization in accounting context is comparable to the accounting standard setting process where the accounting setting practices of an organization and its generally accepted accounting principles are integrated into accounting standards that are susceptible to modifications as the preferences, needs, social, political and economic circumstances of the organization change (Cortese, 2006). Institutional theory is mostly applied in accounting research in conjunction with resource dependency theory to explain the process and factors that influence accounting policy choice by public listed entities. Based on these characteristics, institutional theory could only be applied in an environment where public listed entities are not mandatorily required adopt and implement certain accounting policies by the state. Public institutions are only enticed to adopt certain accounting policies introduced by the state based on the premise of institutional pressures and rewards through increased legitimacy, resources and other incentives (Carpenter & Feroz, 2001). Therefore, the framework of institutional theory may not be applicable in this study because the Oil and Gas companies being examined are in jurisdictions where all listed entities and significant public interest entities are compulsorily required to adopt IFRS and prepare their financial statements in accordance with the framework of these standards.

Agency Theory:

Agency theory as described by Jensen and Meckling (1976) is the relationship where in a contract one or more persons (the principal(s)) engage another person (agent) to perform some service on their behalf which involves delegating some decision making authority to the agent. This kind of relationship normally happens because of separation of ownership and

control, when the owner of the company or the board of directors have to employ managers to run the business and need to monitor their performance to ensure they act in the interest of the owners (Jensen and Meckling, 1976). Conflicts normally arise when ownership of an entity is different from its management. Such conflicts evolve when the desires of the principal (owners) are in contrast with the goals of the agents (managers) or when it is difficult or expensive for the principal to verify what the agent is doing on their behalf (Jensen and Meckling, 1976). Agency theory is therefore concerned with resolving these two problems with the aim of streamlining the business and eliminating information asymmetry.

The concept of agency theory could be related to this study in terms of the contractual relationships between Oil and Gas companies and the Nigerian government in the exploration and production of hydrocarbon resources. There are basically two main types of contractual relationships between Nigerian Government, represented by the Nigerian National Petroleum Corporation (NNPC) and Oil and Gas exploration and production companies; the Joint Ventures (JVs) and the Production Sharing Contracts (PSCs). Under the JV agreement, all parties are to share in the cost of operations and in the quantity of crude oil produced according to their participating interest (NEITI, 2011; NNPC, 2013). In this type of agreement there is no demarcation of a principal or agent. It is rather a partnership relationship than an agency relationship. There are presently seven JV agreements between the Nigerian government and Oil and Gas companies out of which six are responsible for the production of about 90% of the total Crude Oil and Gas in Nigeria (Ameh, 2006). Under the PSC however, the contractor bears the entire cost and risk of crude oil exploration activities and only recoup these costs upon the discovery of commercial quantities of Crude Oil and Gas resources (Ameh, 2006). The Crude Oil and all exploration installations belong to the host government throughout the duration of the contract but the remainder of the crude oil is shared between the two parties in agreed proportions.

The elements of principal-agent relationship are more visible in the PSC than in the JV agreements. However, the theory could not be applied in this study because the PSC does not contribute significantly to the crude Oil and Gas production in Nigeria.

Stakeholder Theory:

The notion of stakeholder theory has been extensively applied in management research to address the ever changing demands of different groups that have legitimate stakes of varying degrees from the firm. The stakeholder theory is often applied in literature to discuss corporate social responsibility (CSR) of corporations in terms of their commitment to acknowledge their responsibility to a broader constituency rather than their responsibilities to their owners (Elijido-Ten, 2005). Freeman (1984) proposes that current approaches to understanding the business environment fail to take into consideration the wide range of groups or stakeholders who can affect or be affected by the corporation. The stakeholder theory could be applied in this study to discuss the responsibility of Oil and Gas companies to their immediate environment and crude Oil exploration communities. Oil and Gas companies should own up to their responsibilities in terms of ploughing a substantial portion of their revenues to the oil and exploration communities by way of environmental rehabilitation and remediation, pollution abatement, roads construction, building of hospitals, schools and provision of other social amenities.

Despite the importance and relevance of stakeholder theory to the activities of Oil and Gas exploration and production companies, the application of this theory in this study may lead to a deviation from the main aim and objectives of the study. Based on this therefore, the stakeholder theory is not considered appropriate to provide the theoretical framework in discussing the impact of IFRS adoption on the financial statements of listed Oil and Gas companies.

An extensive review of accounting literature reveals that Decision Usefulness Theory, Positive Accounting Theory and Power-Capture Theory are the most appropriate theories to provide the logical approach and framework for the present study in investigating the impact and implications of IFRS adoption on the financial statements of listed Oil and Gas companies. The theories will be integrated in this study to give the construct of the theoretical framework in relation to the concept and conceptual framework of IASB in the preparation and presentation of financial statements. The theories will also be applied in relation to the aims of IASB in the development and issuance of accounting standards and their guidance on fair value orientation, going concern and concepts of quality and comparability of financial statements. The framework of these theories will also be used to explain the reaction of Oil and Gas companies to changes in accounting policies which is reflected in the accounting numbers, financial ratios and other financial statement variables. The theories will be conceptualized in explaining the relationships between Oil and Gas companies and the Nigerian Government in terms of JVs and PSCs as manifested in the significant influence the Oil and Gas companies wield in the design and implementation of certain economic policies and other sensitive Oil and Gas policy decisions by the Nigerian government.

The three theories incorporated in this study are discussed in details in the next section.

3.8.1: Decision Usefulness Theory

There are various alternative measurement methods available in accounting. For many years, accountants and accounting theorists have been exploring the best criteria which can be used to choose the best measurement alternative (Williams & Ravenscroft, 2011). Decision usefulness theory (DUT) emerged in 1966 when the American Accounting Association (AAA) engaged in a mission of defining a basic statement of accounting standards

(ASOBAT) theory (Williams, 2012). The objective is to enable practitioners and standard setters to eliminate the controversy created by the various, conflicting alternative accounting measurement foci. The general belief is that an accounting theory would justify the choices standard setters mandated (Buys, 2010). DUT provides the basic concepts and conceptual framework of IASB on the preparation and presentation of financial statement (IASB, 2010). According to IFRS (2008), accounting information's qualitative characteristics of relevance and representational faithfulness in terms of quality, comparability and understandability, renders it useful to the users in their capacity as capital providers (Buys, 2010).

The DUT emphasizes on the outcome of the accounting process and the information that accounting provides (Cortese, et al., 2010). This theory considers that accountants know the needs of financial statement users and those needs are common to all users (Inanga and Schneider, 2005). Accountants can therefore prepare a general purpose financial statement that can be useful to all users. The DUT provides the foundation and the basic concept and conceptual framework of IASB (IASB, 1989) for the preparation and presentation of financial statements (Cortese et al., 2010). The framework provides a guide to standards-setting, so that standards are formulated on a consistent basis and not in an ad hoc manner. According to the IASB conceptual framework (IFRS, 2008), the objective of the general purpose financial reporting is to provide financial information about the reporting entity that is useful to present and potential equity investors, lenders and other creditors in making decisions in their capacity as capital providers. It is essentially normative and seeks to provide a set of principles as a guide to setting and interpreting accounting standards. The main purpose of the conceptual framework is to assist the IASB by identifying the concepts that it will use consistently when developing and revising IFRSs. Specifically, the conceptual framework was developed in order to;

- Assist the IASB in promoting harmonization of regulations, accounting standards and procedures relating to the presentation of financial statements by providing a basis for reducing the number of alternative accounting treatments permitted by the IASs.
- The framework also assists the national standards setting bodies in the developing national accounting standards.
- Assist preparers of financial statements in applying IFRSs and in dealing with topics that have yet to form the subject of an IFRS
- To assist auditors in forming an opinion as to whether the financial statements conform with IFRS
- To assist users of financial statements in interpreting the information contained in financial statements prepared in conformity with IASs.

A review of accounting literature shows that Cortese (2006) applied the framework of Power-Capture theory, integrating Lukes' (1974) theory of power and Mitnick's (1980) theory of regulatory capture to discuss the role of power in the international accounting setting process for the extractive industries. He argued that the extractive industries have exercised power over the IASB and captured the international accounting standards setting process so as to secure an IFRS for the extractive industries that perpetuates the status quo of flexibility in extractive industries accounting. In this regard, the regulated industry (extractive sector) has significant influence and control over the agenda setting processes and decisions of the regulator (IASB) as a result of actual power (Cortese et al., 2010). Dunne, et al. (2008) applied the framework of Decision Usefulness Theory as the theoretical lens of their study to discuss the implementation of IFRS in the UK, Italy and Ireland by evaluating the financial statements produced under IFRS against the proposed objective of the accounting standard setting body. They concluded that the objective of the IASB for decision-useful financial information did not meet the expectations of majority of their interviewees.

Consistent with literature, this research will incorporate the framework of DUT in relation to the objectives of the IASB's concepts and conceptual frameworks in the preparation and presentation of financial statements. The theory is applied in explaining the role of the IASB in the formulation and issuance of IFRS with the aim of improving accounting quality, comparability and reliability of financial statements. Therefore the DUT will provide a framework for relating the impact of the adoption of IFRS on the quality of the financial statements, ease of preparation and presentation of the financial statements to management and other stakeholders, ease of audit of the financial statement and ease of comparing these financial statements among competitors across the Oil and Gas sector.

3.8.2: Positive Accounting Theory:

Positive Accounting Theory (PAT) was developed by Watts and Zimmerman (1986, 1990). This theory essentially explores accounting policy choices, transactions and the information costs associated with these events (Scott, 1997). PAT is a prerequisite to understanding how firms will react to accounting policy changes (Hagerman and Zmijewski, 1979) and respond to the adoption of the new accounting standards (Scott, 1997). The theory is of the view that firms' accounting policy choice is based on minimizing the contracting costs so as to attain efficient corporate governance (Rath & Sun, 2008). The theory is of the view that firms will conduct themselves in the way that maximizes their own best interest by adopting the appropriate accounting policies (Rath & Sun, 2008). The PAT theory is incorporated in this research based on the accounting standards setting objectives of the IASB[18] to measure the reaction of Oil and Gas companies to changes in accounting policies in terms of their accounting numbers, financial ratios and other industry specific performance measures like; Exploration and Evaluation expenditures, decommissioning expenditures,

[18] *The IASB, by developing high quality accounting standards, seeks to address a demand for better-quality information that is of value to all users of financial statement. Better - quality information will also be of value to preparers of financial statements*

impairments of assets, changes in inventories and average daily Crude Oil production cost per barrel.

3.8.3: Power - Capture Theory:

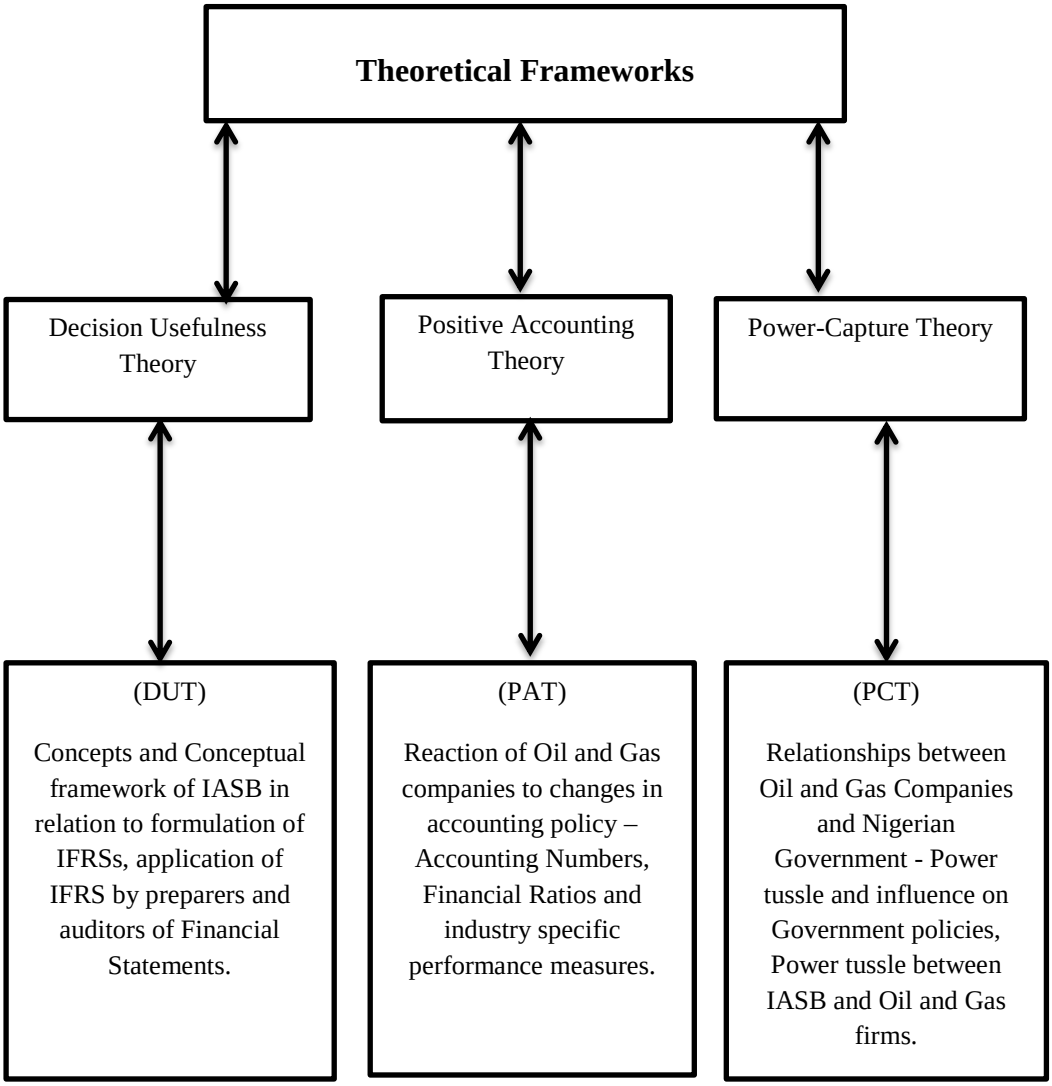
There are two major types of contractual relationships between Nigerian government and Oil and Gas companies in the exploration and production of hydrocarbon resources; the Joint Ventures (JVs) and Production Sharing Contracts (PSCs). The Luke's (1974) theory of power and Mitnick's (1980) theory of regulatory capture will be applied in explaining these contractual arrangements as they relate to taxes, royalties, bonuses and the profit oil split. The two theories are integrated to form the power - capture theory, which is then conceptualized in this study to explain the relationships between the Oil and Gas companies and their host Governments. Specifically, the theory will be applied in explaining the power tussle between Nigerian Government and Oil and Gas companies and the roles played by Oil and Gas companies in influencing certain government policies and economic decisions they consider unfavorable or detrimental to their businesses and corporate existence in Nigeria (Vines et al., 2009). The Nigerian Oil and Gas sector is largely controlled by the Nigerian National Petroleum Corporation (NNPC) via the JV and PSCs with the IOCs. The controversy over some of the provisions and proposed amendments in the Nigerian Petroleum Industry Bill (PIB) regarding tax and share of the government's stake in the contractual relationships were mainly responsible for the delay in passing the PIB into law. According to US EIA Report (2015), well under half of planned deep-water oil projects are currently sanctioned by IOCs due to the uncertainty over the proposed changes in the PIB. The Power-Capture theory will also be used to explain the power play between Oil and Gas companies and the IASB in the development and issuance of Oil and Gas industry specific accounting standards. The main issues are the notions of power, politics and conflict of interests between the IASB and the

extractive sector companies on one hand, and the Oil and Gas companies and the Nigerian Government on the other.

Various researchers have applied the framework of Power-Capture theory to examine a variety of phenomena. Hope and Gray (1982) adopted Luke's (1974) framework of power to investigate the development of an accounting standard in respect of Research and Development (R&D) in the United Kingdom. Cortese (2006) applied the Power-Capture theory to explain the power of the extractive industries in capturing the IASB's international accounting standard setting process. Luke's (1974) theory of power is governed by three basic dimensions of power. Luke's (1974) first dimension of power is based on the work of Dahl (1957, 1958, and 1961) in the classical pluralist approach to power. In this dimension, power is said to exist when one person exerts control on another over an argument or an issue. However, critiques of Luke's (1974) first dimension of power (Bachrach & Baratz, 1970) argued that for power to exist there must be an observable conflict of interest between the parties. It is based on these criticisms that Luke's (1974) second dimension of power was developed. This dimension of power is based on Bachrach & Baratz's (1970) critique of the first dimension which argued that power has two faces. You have power if you can set the agenda, deciding what should be discussed and dictating the situation.

Drawing on the strengths of each of these theories and consistent with literature, this study will incorporate the frameworks of positive accounting theory, decision usefulness theory and power-capture theory in explaining the impact of the shift in accounting policy on the financial statements of listed Oil and Gas companies as depicted in figure 3.1 below.

Figure 3.1: Research Theoretical Framework



3.9: CONCLUSION

In this chapter, an overview of the African Oil and Gas sector and the impact of Oil and Gas exploration and production on the growth and economic development of the African continent were discussed. Literature has revealed that Africa has a proven Crude Oil reserve of about 130 billion barrels which is about 10% of the world Crude Oil reserves (EIA, 2013). Literature has also revealed that the Oil and Gas sector is the main economic activity of most African countries and estimated to account for about 57% of the continent's total export earnings (KPMG, 2015; SDI, 2015).

Nigeria is the largest holder of the proven African Crude Oil reserve with about 37 billion barrels which is equivalent to about 2.5% of the world Crude Oil reserves, followed by Angola which has about 9.1 billion barrels of Crude Oil reserves (OPEC, 2015). In terms of Crude oil production, Nigeria produces about 2.3 million barrels of crude Oil daily which amounts to about 25% of African and about 2.6% of the world daily Crude Oil production (EIA, 2013). The Nigerian economy virtually depends on the Oil and Gas sector which provides about 95% of the country's foreign exchange receipts, about 65% of tax receipts and about 15% of the country's GDP (NBS, 2014; SDI, 2015).

The four major phases of Crude Oil and Gas exploration and production namely; the Acquisition phase, Exploration and Evaluation phase, Development phase and the Production phase have been discussed, the costs associated with these phases and the different criteria and guidance in terms of recognition, measurement and classification of these costs were discussed in relation to GAAP and IFRS standards.

The concept of Oil and Gas sector accounting was introduced and the main accounting methods; FC and SE accounting methods were discussed. Literature has revealed that the SE accounting method was favored by large Oil and Gas companies who are

disposed to expensing their costs of unsuccessful exploration operation, while the FC accounting method was favored by small Oil and Gas companies that capitalize all costs of exploration and evaluation regardless of whether these expenditures would lead to successful discovery of commercial quantities of Crude Oil and Gas reserves or not.

The chapter also highlighted the key accounting standards applicable to the Oil and Gas sector with emphasis on IFRS 6: E*xploration for and evaluation of mineral resources* and the equivalent SAS 14: *Accounting in the Oil and Gas sector* (Upstream Operation) and SAS 17: *Accounting in the Oil and Gas sector* (Downstream Operations), SAS 3: *Accounting for property, plant and equipment*, and IAS 16: *property, plant and equipment*.

The main contractual relationships between Oil and Gas companies and the Nigerian governments namely; the Joint Ventures (JVs) agreements and the Production Sharing Contracts (PSCs) agreements have been discussed. Guidance on these relationships is provided by IFRS 11: *Joint Arrangements* and IFRS 12: *Disclosure of Interest in other Entities*, SAS 28: *Investment in Associates* and SAS 29: *Interest in Joint ventures*. The differences in recognition and measurement of interests and the recognition of impairment losses are the main differences between the two GAAP and IFRS standards.

Finally, the theoretical framework underpinning the study with emphasis on Decision Usefulness Theory, Positive Accounting Theory and Power-Capture Theory were discussed in relation to the impact of the transition from GAAP to IFRS on the key performance measures of Oil and Gas companies and the relationships between Oil and Gas companies, IASB and the host governments.

In chapter four, the methodological framework of this research will be developed and discussed taking into consideration the unique nature of the Oil and Gas sector. The

philosophical dimensions that may be considered in this study will be discussed based on the literature and the characteristics of the Oil and Gas sector. Finally the various strategies and justifications for primary and secondary data collection and analyses will be discussed

CHAPTER FOUR:

RESEARCH METHODOLOGY AND METHODS

CHAPTER FOUR: METHODOLOGY AND METHODS

4.1: INTRODUCTION

Chapter three provided the detailed literature driving this study. The chapter discussed the history of accounting and accounting systems in various jurisdictions around the world and the influence of culture on accounting values and accounting systems. The chapter also provided detailed comparative analyses of IFRS vs. NG-GAAP, IFRS vs. UK-GAAP and IFRS vs. US-GAAP policies in terms of their guidance on recognition, measurement and classification of assets, liabilities, revenues and expenditures of Oil and Gas companies. The major accounting methods (FC and SE accounting methods) applied in the Oil and Gas sector and the phases of Oil and Gas exploration and production were presented and discussed. The theoretical frameworks to be employed in the study were discussed with emphasis on decision usefulness theory, positive accounting theory and power-capture theory.

The present chapter is concerned with the methodological frameworks and methods of data collection and analysis adopted for this research. The chapter is organised as follows. Section 4.1 provides a recap of the chapter, while section 4.2 discusses the unique characteristics of Oil and Gas sector which will inform the design of an appropriate methodology to be applied in conducting the research. Section 4.3 provides the research philosophical dimensions and the specific research paradigm underpinning this study. Section 4.4 discusses the research design taking into consideration the research questions and unique characteristics of the Oil and Gas sector. Section 4.5 will provide a summary and the conclusions of this chapter.

4.2: CHARACTERISTICS OF THE OIL AND GAS SECTOR

In order to design the most appropriate research methodology for this study and enable the researcher to fully investigate the impact and implications of the adoption of IFRS on the financial statements of listed Oil and Gas entities, it is important to unveil the unique characteristics of the extractive sector which differentiates it from other sectors. The Oil and Gas sector is characterised by exploration and evaluation expenditures, risks and reward potentials, decommissioning expenditures, health and safety risks of decommissioning and the unique accounting methods used in the recognition, measurement and classification of assets, liabilities, revenues and expenditures incurred in the exploration and production of Crude Oil. Literature has shown that the choice of methodology appropriate for a research study is dependent on the nature of phenomenon being investigated (Tomkins and Grove, 1983).

The extractive sector generally is a very sophisticated and specialised industry that requires significant amounts of initial capital investment (Wise and Spear, 2000). The Crude Oil and Gas exploration and production procedure is consist of four main phases; the property acquisition phase, the exploration and evaluation phase, the development phase and the production phase. The sector compared to other sectors has a peculiar and specialised type of accounting system consisting of full cost (FC) and successful efforts (SE) accounting methods. It has well-structured policy frameworks on PEL and ML acquisition, significant risk and reward potentials in the Crude Oil and Gas exploration, production and the eventual decommissioning of the Crude Oil production installations at the end of the exploration exercise, broad based regulations and procedures pertaining to contractual arrangements in exploring the hydrocarbon resources etc. Such policy guidelines, frameworks and regulations vary from jurisdiction to jurisdiction and provide the necessary guidance to companies in the

extractive sectors with the legal backing and operational guidelines in their day to day activities.

The Nigerian Petroleum Act of 1960 prescribes the legal framework for the acquisition of PEL, ML, Crude Oil exploitation and production etc. to all Crude Oil exploration companies operating in the country. The Nigerian Petroleum (Drilling and Production) Regulation of 1969, prescribes the key Exploration and Production regulations while the Nigerian Petroleum Industry Bill (PIB) 2012 recommends for the review of the obsolete contractual arrangements between Nigerian Government and IOCs, review or expunge the non-disclosure of upstream remittance information clause among other recommendations, with the aim of restructuring the entire hydrocarbon sector in Nigeria. Some of the unique characteristics of the Oil and Gas sector as highlighted above are discussed as follows.

4.2.1: Accounting Methods

The unique nature of extractive sector makes it the only sector with multiple accounting systems; the most prominent accounting methods are the SE and FC accounting methods as highlighted in chapter 3. Both GAAP and IFRS provisions permit Oil and Gas companies to employ either method to account for their E&E expenditures as provided by SAS 14: *Accounting in the petroleum industry* (Upstream Activities) and IFRS 6: *Exploration for and evaluation of mineral resources* respectively. However because of the limitations of IFRS 6, Oil and Gas entities are allowed by the IASB to continue to apply the guidance provided by GAAP to account for expenditures incurred after the E&E phase of Oil and Gas exploration until a more comprehensive solution is developed and a substantive standard issued. European Oil and Gas Companies have maintained their previous accounting principles like SFAS No. 19: *Financial accounting and reporting by Oil and Gas producing*

companies and SFAS No. 69: *Disclosures about Oil and Gas producing activities* (Nadine and Jean-Pierre, 2011).

Generally, big Oil and Gas companies are more inclined to the SE accounting methods in order to lower their tax obligation to the host government (Malmquist et al., 1990). In this method, all costs of unsuccessful exploration operations are expensed as incurred while costs that lead to the discovery of commercial quantities of hydrocarbon resources are capitalized as part of the company's PPE. The application of SE accounting method will result in lower profits at the end of the financial year, hence lower tax remittances. Small Oil and Gas companies however prefer the FC accounting method (Malmquist et al., 1990), where all costs incurred in the exploitation and production of hydrocarbon resources are capitalised as part of the company's PPE regardless of whether these expenditures will lead to the discovery of commercial quantities of hydrocarbon resources or not. The application of this method will make the asset size of these companies look bigger and very attractive to potential investors (Baker, 1976; Al-Jabr & Spear, 2004; Malmquist et al., 1990).

4.2.2: Decommissioning and Environmental Rehabilitation

Decommissioning operation is one of the activities in the Oil and Gas sector that requires a significant amount of provision in terms of expenditures. Entities in the extractive sector are required by law to remove, dismantle and restore all items of PPE at the end of the exploration and production activities or when production falls to an uneconomically low level and it is no longer feasible to produce minerals even under enhanced recovery techniques. This requirements are provided in Article 60(3) of United Nations Convention on the Law of the Sea (UNCLOS, 1982), which came into force in 1992, the International Maritime Organisation (IMO) guidelines of 1989 and the Oslo and Paris Convention (OSPAR, 1999)

for the Protection of the Marine Environment of the North East Atlantic. The OSPAR, Article 5(1) Annex III (2007) provides that;

"The dumping and the leaving, wholly or partially in place, of disused offshore installations within the maritime area is prohibited."

OSPAR Article 5(1)2007, pg. 24

"No disused offshore installation or disused offshore pipeline shall be dumped and no disused offshore installation shall be left wholly or partly in place in the maritime area".

OSPAR Article 5(1)2007, pg. 24

The decommissioning of Oil and Gas installations operation requires enormous amounts of resources. According to the Oil and Gas UK survey (2012:27), about £28.7billion is expected to be spent on decommissioning of existing and sanctioned fields and infrastructure on the UK continental Shelf (UKCS) from 2012 - 2040. Some gravity based Oil exploration structures (GBS) built in the early 1970s like the Delta Platform in the UK, present significant technological and engineering challenges to decommission (Oil and Gas UK, 2015). These giant structures are characterised by very thick cell walls and located deep beneath the surface of the ocean. There are considerable engineering challenges and safety risks associated with attempting to remove or dismantle such gigantic structures (Oil and Gas UK, 2015). In Nigeria however no decommissioning of offshore structures has taken place yet (Adedayo, 2011), however Oil marketing companies are required to decommission all obsolete Oil transportation and storage facilities as appropriate. Oil and Gas exploration and production companies are required to provide for decommissioning of Oil and Gas installation and environmental rehabilitation expenditures in their financial statements as appropriate.

4.2.3 Economic Risks and Reward:

The extractive sector is one of the most complex sectors in terms of risks of losing a significant amount of investments in the exploration process and rewards of discoveries of commercial quantities of hydrocarbon resources (Le Billon, 2011; Stevens et al., 2013). The Oil and Gas sector is very unpredictable as far as exploitation and production of hydrocarbon resources are concerned. The sector is associated with risks of health and safety in terms of environmental accidents and attacks in the process of Crude Oil and Gas exploration (EY, 2013). Typical example are the Amenas Gas plant attack of January 2013 in Algeria where over 40 staff were killed, the Oil spill in the Gulf of Mexico in 2010 and other unreported accidents, operational and environmental incidents. The risks in the Oil and mineral exploration are highly significant and have been described "endemic to the industry" (Wise and Spear, 2002. P. 3).

Other risks associated with the Oil and Gas sector include risks of access to Crude Oil and Gas reserves which has been described by Cortese (2009) as the number one risk due to the difficult, complex and unstable exploration environment, Crude Oil price volatility, project cost escalation as a result of inflation, uncertain energy policies like the PIB in Nigeria, human capital deficiencies, political risks, decommissioning risks and risks of attacks and vandalisation of Oil and Gas installation. However, despite these risks, Oil and Gas business is probably the most profitable venture and most rewarding in terms of revenue for the host government and the Oil and Gas exploration and production companies. The exploration and evaluation is regarded as most risky (Wise and Spear, 2002; Cortese, 2009) considering the high number of dry holes compared to successful operations. Moreover, there is no guarantee that the amount of resources expended on E&E can be fully recouped from the crude Oil and Gas produced because of complete lack of correlation between expenditures and results.

4.2.4: Contractual Relationships

Oil and Gas exploration and development projects are characterised by large capital investments, incomplete information, long lead periods and in most cases the disproportionate abilities of the two parties to bear the risks involved (Wise and Spear, 2002). It is on this basis that countries endowed with enormous deposits of hydrocarbon resources enter into partnership with international Oil companies (IOCs) in the forms of JVs or PSCs in order to spread these risks and share the proceeds of production. In majority of these relationships, the IOC is expected to provide the necessary capital, technology and expertise while the state owns the natural resources (Bindemann, 1999). The objective of the host Government is to maximise wealth from its natural resources by encouraging appropriate level of exploration and production of Oil and Gas resources. The objective of the Oil and Gas companies however, is to build equity and maximise wealth by finding and producing Oil and Gas reserves at the lowest possible cost and highest possible profit margin (World Bank, 2014). The proceeds of exploration are shared based on agreed sharing ratio. However, IOCs are required to pay taxes and royalty out of their share of the shared resources as required by SAS 29**:** *Interest in Joint Ventures.* Under the terms of the contract, IOCs bear all costs of exploration, development and production. They are however allowed to recover all these costs out of the net resources subject to costs recovery limit as agreed.

Main Clauses of the contractual agreements as reported by Bindemann (1999) are;

- Duration of the contract
- Bonuses (Signature, discovery and production bonuses)
- Royalty Rate: Guaranteed minimum revenue flow to the government regardless of the profitability of the project, percentage of production (this is imposed on the Oil and Gas companies)

- Taxation: Paid out of the share of IOCs Profit Oil Split (imposed on the Oil and Gas companies by the host government)
- Cost Oil Recovery (COR): Percentage of production allocated to the IOCs to recoup their investment (This is negotiable).

  Profit Oil Split: Net production after royalty and COR have been deducted (This is negotiable), 50/50 or 60/40 in favour of the host country.

Based on the unique characteristics of the Oil and Gas sector discussed above, this study will be designed in such a way as to enable a systematic and in-depth investigation of the disparities between the GAAP and IFRS as they affect the financial statements of listed Oil and Gas companies. Specifically, the research design will focus on GAAP and IFRS differences in terms of Exploration and Evaluation expenditures, decommissioning and environmental rehabilitation expenditures, key performance measures, inventory classification and measurement, impairment of assets, property, plant and equipment (PPE), average daily crude oil production cost per barrel, quality and comparability of IFRS based financial statements among competitors across the Oil and Gas sector. The research design will also incorporate the contractual relationships between International Oil and Gas Companies (IOCs) and the Nigerian Government in terms of JVs and PSCs as it relates to taxes, royalties, bonuses and profit oil split.

The next section will discuss the philosophical frameworks underpinning social science research with reference to Burrell and Morgan (1979) and the specific ontological, epistemological and methodological choices that will influence the selection of the proposed research method for this study.

4.3: RESEARCH PHILOSOPHICAL DIMENSIONS

Research has been defined and described in many forms and formats in literature. Research according to Clifford Woody 1948, (Kothari, 1985) is an academic activity that comprises defining and redefining problems, formulating hypothesis or suggested solutions; collecting, organizing and evaluating data; making deductions and reaching conclusions; and at last carefully testing the conclusions to determine whether they fit the formulating hypothesis. Research has also been described as a voyage of discovery and a scientific and systematic search for pertinent information on a specific topic (Kothari, 1985). It is a process that is undertaken within a framework of a set of philosophies or approaches using procedures, methods and techniques in order to find solution or answers to a set of identified questions or knowledge gap (Blaxter, 2006). It has been described by Hamid (2012), as the process of arriving at dependable solutions to problems through a planned and systematic collection, analysis and interpretation of data. Research has been described as a logical and systematic search for new and useful information on a particular topic (Rajasekar et al., 2013). Research is conducted with the help of a study in the form of experiment, analysis, observation, comparison and reasoning.

Generally, the objectives of research are to discover new facts, to verify and test important facts, to analyse a phenomenon in order to identify the cause and effect relationship and to find solutions to scientific, non-scientific and social problems (Rajasekar et al., 2013). Research involves identifying the problem, formulating a hypothesis, collecting the facts or data, analysing the data and reaching certain conclusions either in the form of solutions towards the concerned problem or in certain generalization for some theoretical formulation. From the various analogies above, research could be viewed as a search for knowledge, using objective and systematic methods to find solution to a problem. The exact definition of

research is therefore hinged on the researcher's theoretical frameworks or research paradigms which influence the way knowledge is studied and interpreted (Mertens, 2005). The choice of paradigm provides the intent, motivation and expectations for the research. The adoption of a specific research paradigm will provide the basis for subsequent choices regarding the appropriate methodology, methods and the specific research design (Mertens, 2005).

The next section will introduce the concept of research paradigm with reference to the main schools of thought and their conflicting views and various philosophical assumptions regarding the nature of reality.

4.3.1: Research Paradigms

Paradigm has been described by Hussey and Hussey (1997, p. 47) as "the process of scientific practice based on people's philosophies and assumptions about the world and the nature of knowledge". Bergman (2010, p. 172), described paradigm as "a special form of concept which has gained importance, not only in social and related sciences, but also in the philosophy of science". Paradigm as described by Bailey (1978) is "the perspective of reference for viewing the social world, consisting of a set of assumptions and concepts". Research paradigms are a set of fundamental assumptions and beliefs as to how the world is perceived which then serves as a thinking framework that guides the behaviour of the researcher (Jonker and Pennink, 2010). Research paradigm as emphasized by Berry & Otley (1991), Creswell (2009), Saunders et al. (2009) and Neuman (2011) is the foundation of research because it substantially influences how the researcher undertakes a social study from the way of framing and understanding social phenomena.

There are two main schools of thought upon which all underlying assumptions regarding research are based; the subjectivist's and objectivist's schools of thought as

highlighted by Holden et al. (2010). These two philosophies have contrasting views regarding approaches to research as depicted in Table 4.1 below.

Table 4.1: Research Philosophical Paradigms

Objectivists	Subjectivists
Quantitative Approach	Qualitative Approach
Positivists	Phenomenological paradigm
Scientific approach	Humanistic
Experimentalists	Interpretivists
Traditionalists	Social approach

Source: Alternative Philosophical Paradigm: Hussey and Hussey (1997)

A considerable amount of literature has been published on research philosophical paradigms as it concerns the subjective - objective divides in social science research. The most comprehensive philosophical framework based on these paradigms was developed by Burrell and Morgan (1979). The two schools of thought are continuums polar opposites with varying philosophical positions aligned between them (Holden et al., 2010) as depicted in table 4.2. The objectivists approach is synonymous to natural sciences research. The approach was regarded as highly successful as such social science researchers decided to employ the same approach to investigate social science phenomena. However, application of the approach to social science research was continuously criticized by various scholars. Subjectivists argue that social and natural sciences are disparate as such, objectivism is an inappropriate approach in the study of social science phenomena (Holden et al., 2012). Objectivism and Subjectivism have been variously labelled in literature as positivism and phenomenology by Easterby-Smith et al, (2002), while Hughes and Sharrock (1997) entitled them as positivism and interpretive alternatives. The various philosophical assumptions underlying the positivist's and interpretivist's positions regarding the nature of social science are discussed as follows.

4.3.2: Research Philosophical Assumptions

The two major philosophical approaches as conceived by Burrell and Morgan (1979) are delineated by several core assumptions concerning Ontology (Reality), Epistemology (Knowledge), Human nature (pre-determined or not) and Methodology (Holden et al., 2010). The assumptions can differ considerably from one end of the spectrum to the other depending on which position the researcher adopts as depicted in Table 4.2.

Table 4.2: Assumptions about the Nature of Social Science

Subjectivists approach to Social Science		**Objectivists approach to Social Science**
Assumptions		
Nominalism	← Ontology →	Realism
Anti-positivism	← Epistemology →	Positivism
Voluntarism	← Human Nature →	Determinism
Ideographic	← Methodology →	Nomothetic

Source: Burrell and Morgan (1979)

Ontology:

According to Burrell and Morgan (1979), ontology relates to the nature of reality, and how one perceives a reality. Objectivists argue that the existence of reality is external and independent of social actors and their interpretations of it (Saunders et al., 2009). While subjectivist adopter theory believes that reality is dependent on social actors and assumes that individuals contribute to social phenomena. Ontology varies from Nominalism from one end of the spectrum to Realism at the other end (Burrell and Morgan, 1979). The realist's position holds that individual is seen as being born in into and living within a social world which has a reality of its own. While the Nominalists do not admit to there being real structure to the world and holds the assumption that social world external to individual cognition is made up of nothing more than concepts, labels and names which are used to structure reality. The

choice of ontological assumptions will signify different epistemological approaches and specific research methodologies and methods which will then determine the research scenarios and hypotheses that are to be tested (Burrell and Morgan, 1979).

Epistemology:

The concept of epistemology relates to the questions of what should be regarded as acceptable knowledge in a discipline. The central issue in epistemology is whether social world can be studied according to the same principle, method, approach and ethos as the natural sciences (Bryman and Bell, 2007). Epistemological positions range from Positivism from one end to Anti-Positivism at the other end of the spectrum. Positivism is the epistemological position that advocates the application of the methods of natural sciences in the study of social phenomena and beyond. Positivists epistemology also contends that knowledge can only be derived from observation, whereby the researcher attempts to explain and predict what occurs in the social world by searching for regularities and causal relationships between the events being investigated which is accomplished via the development and testing of hypotheses (Burrell and Morgan, 1979). Epistemological anti-Positivism on the other hand regards the social world as the 'relativistic' whereby knowledge is something to be derived from personal experience (Burrell and Morgan, 1979). Quantitative purists like Popper (1963) believe that social observations should be treated as entities in much the same way that physical scientists treat physical phenomena. They are also of the opinion that the observer is separate from the entities that are subject to observation. The principle of phenomenalism as argued by the advocates of positivism is that only phenomena and hence knowledge confirmed by the senses can genuinely be regarded as knowledge.

Human Nature:

The relationships between individuals and the society in which they live are explained by the assumptions about Human Nature. These assumptions are characterised from Determinism from one end of the spectrum to Voluntarism at the other end. Determinism regards human beings and their activities as the products of their environment and determined by the situation in which they are located (Burrell and Morgan, 1979). Voluntarism recognises human beings as being completely autonomous and 'free willed', and thus govern, and are responsible for their own actions (Burrell and Morgan, 1979). The views on Human Nature when synchronised with the ontological and epistemological positions as discussed above, will directly influence the choice of the research methodology as postulated by (Burrell and Morgan, 1979).

Methodology:

Methodology however is the tool kit of the researcher. It is the model the researcher uses to conduct a research within the context of a particular paradigm (Wahyuni, 2012). It comprises the underlying sets of beliefs that guide a researcher to choose one set of research methods over another. Methodology has been described by Taylor and Bogdan (1984) as "the way in which we approach problems and seek answers". Laughlin, (1995) in a similar context asserts that "the methodology dimension can have a theoretical definition for the set of the spectacles that forms the nature of the methods for the empirical investigation which also has implicit implications for the role of the human agent in the process". Methodology involves the study of how knowledge about the world is acquired and considers how the entire research process is conceptualised and executed (Burrell and Morgan, 1979; Creswell, 2009). The function of the methodology is to examine the research methods to be used to produce

knowledge about the world and to provide the reasons and justifications for the selection of these methods (Burrell and Morgan, 1979).

The Methodological assumptions are characterised by Ideographic at one end of the spectrum to Nomothetic at the other end. Ideographic Methodologies such as interviews, focus group and case studies emphasise on obtaining a direct understanding of a particular issue by letting ones subject unfold in its nature and characteristics during the process of the investigation (Burrell and Morgan, 1979). Ideographic Methodology is synonymous to qualitative research (Burrell and Morgan, 1979). The Nomothetic Methodology on the other hand derives from the natural sciences whereby a hypothesis is tested after its formulation (Burrell and Morgan, 1979). The Nomothetic Methodology is synonymous to quantitative research methods (Burrel and Morgan, 1979).

Table 4.3: Research Methodological Approach

Research Paradigms			
Fundamental Beliefs	**Positivism (Naïve realism)**	**Interpretivism (Constructivism)**	**Pragmatism**
Ontology The researcher's view of the nature of reality or being	External, objective and independent of social actors	Socially constructed, subjective, may change, multiple	External, multiple, view chosen to best achieve an answer to the research question
Epistemology The researcher's view to what constitutes acceptable knowledge	Only observable Phenomena can provide credible data, facts. Focus on causality and law-like generalizations, Reducing phenomena to simplest elements.	Subjective meanings and Social phenomena. Focus upon the details of situation, the reality behind these details, subjective meanings and motivating actions	Either or both observable Phenomena and subjective meanings can Provide acceptable Knowledge dependent upon the research question.
Methodology The data collection and analysis techniques most often used.	Highly structured, large samples, measurement. Quantitative. Content analysis, questionnaires. Statistical analysis	Small samples, in-depth, qualitative. Interviews, focus group, discussions. Non statistical analysis.	Mixed or multiple method designs, Quantitative and qualitative. Statistical and non-statistical analyses

Adapted from Saunders et al. (2009:119)

Burrell and Morgan (1979) assert that a social science researcher is likely to adopt different methodological approaches depending on the phenomena being investigated as shown in Table 4.3. There are however, two basic approaches to research; Qualitative/Ideographic and Quantitative/Nomothetic approaches. Quantitative research is explaining phenomena by collecting numerical data that are analysed using mathematically or statistically based methods (Aliaga and Gunderson, 2000). This type of research involves the generation of data in quantitative form which can be subjected to rigorous statistical analysis in a formal and rigid fashion. This approach is sub-classified into inferential, experimental and simulation approaches to research. The techniques applied in quantitative research include; content analysis, surveys and questionnaires. The objectives of a quantitative research are normally to quantify data and generalise results or to measure the incidence of various views and opinions in a chosen sample. The outcomes of these analyses are used to recommend a final course of action. A qualitative research however, is concerned with subjective assessment of attitudes, opinions and behaviour in order to gain an understanding of underlying reasons and motivations. The objective is to provide insights into the setting of a problem and generating ideas for the quantitative research. It is applied to uncover prevalent trends in thoughts and opinions. Such an approach to research generates results either in non-quantitative form or in the form which are not subjected to rigorous statistical analysis. Generally, the techniques applied in qualitative research include; interviews, focus group discussions and other projective techniques.

The next section provides the research methodology and the specific methodological approach adopted in conducting this study with reference to the research questions and research theoretical frameworks.

4.3.3: Research Methodology

Methodology is the work plan of the researcher. It is a systematic way to go about conducting the research. Methodology has been described as the science of studying how research is to be carried out. It is the procedures by which researchers go about their work of describing, explaining and predicting phenomena (Rajasekar et al., 2013). Methodology has also been referred to as the theoretical analysis of the methods appropriate to a field of study or to the body of methods and principles particular to a branch of knowledge (Creswell, 2009). Research methodology is the strategy that will be followed in order to achieve the objectives of this study. There are principally three forms of methodological research approaches (research paradigms) as discussed earlier and depicted in Table 4.3; the positivists (quantitative) approach, interpretivists (qualitative) and the pragmatic (mixed methodology) approach.

According to Burrell and Morgan (1979), the ontology, human nature and epistemological positions have direct implications on the methodological approach adopted in social science research. Each of these assumptions has their significant consequences on the approach adopted by the researcher to investigate and attain knowledge about the social world. Literature has shown that different methodological approaches have been employed by academic researchers around the world to investigate the impact of the transition from GAAP to IFRS on the financial statements of listed entities. Hung and Subramanyam (2004) applied a positivist's quantitative approach to investigate the effects of IFRS adoption on financial reports of German firms from 1998 to 2002. They computed the key financial measures and compared the values relevance of financial information of 80 German listed firms under the German GAAP (HGB) with those under the IAS for the same set of firm years. Lang, Raedy and Wilson (2006), Bath et al. (2008), Tsalavoutas and Evans (2008) applied a similar approach where the accounting quality metrics of 411 firms from Switzerland, Germany, and

China were analysed to investigate the effects of the transition from GAAP to IFRS. Morais and Curto (2009) employed a similar approach to Barth et al. (2005), to investigate the impact of transition from GAAP to IFRS on the accounting quality of 34 Portuguese listed firms that prepared and presented their consolidated accounts under IASB's standards in 2005. Finningham (2010) applied the quantitative approach to investigate the impact of the introduction of IFRS on the corporate annual reports and accounts in the UK, while Georgekopoulou et al. (2010) and Pazarkis et al. (2011) applied the same approach to investigate the impact of IFRS adoption on financial statements of Greek listed firms. Okpala (2012) employed quantitative method to investigate the effects of IFRS adoption on the flow of foreign direct investment (FDIs) in Nigeria.

However, studies conducted by Madawaki (2012) and Tanko (2012) on the effects of IFRS adoption in Nigeria employed the interpretivist's approach to investigate the impact of IFRS adoption on the financial statements of listed entities. Similar approach was applied by Leuz and Verrechia (2000) and Leuz et al. (2003) to investigate the impact of IFRS adoption on comparability and transparency of financial reports. Dunne et al. (2008) applied a mixture of positivist's and interpretivist's approach to assess the impact of the implementation of IFRS in UK, Italy and Ireland. A similar approach was applied by Outa (2011) to investigate the impact of IFRS adoption on accounting quality in Kenya

As can be seen from the literature in chapter three, majorities of these studies investigated the impact of IFRS adoption on accounting quality using accounting quality metrics of earnings management, timely loss recognition and value relevance of financial information. There was no attempt by any of these studies to investigate the impact of the adoption of IFRS on the accounting numbers, financial ratios and industry specific performance measures of Oil and Gas companies. This research aims to fill this knowledge

gaps in literature by examining the impact of the adoption and implementation of IFRS on the financial statements of Nigerian listed Oil and Gas entities and comparing the findings with the impact of the adoption and implementation of IFRS on the financial statements of listed Oil and Gas companies in other African countries. It was based on the need to void this knowledge gap and fulfil the objectives of this research that the following six research questions were formulated in chapter three.

Question 1. To what extent does the adoption and implementation of IFRS affect the Exploration and Evaluation (E&E) expenditures of listed Oil and Gas companies?

Question 2. Are there any significant changes in the provision for decommissioning of Oil and Gas installations and environmental rehabilitation expenditures of Oil and Gas companies before and after the adoption and implementation of IFRS?

Question 3. Does the adoption and implementation of IFRS have any significant impact on the Average Daily Crude Oil production cost per barrel of Oil and Gas companies?

Question 4. Are there any significant differences in the Key Performance Indicators (KPIs) of listed Oil and Gas companies before and after the adoption and implementation of IFRS?

Question 5. To what extent does the adoption and implementation of IFRS affect the contractual relationships between Oil and Gas companies and the Nigerian Government in terms of Joint Ventures (JVs) and Production Sharing Contract (PSCs) as it relates to taxes, royalties, bonuses and profit oil split?

Question 6. To what extent does the adoption and implementation of IFRS affect the ease of preparation and presentation of Oil and Gas company financial statements, ease of audit of the financial statements, quality and comparability of the financial statements among competitors across the Oil and Gas sector?

The next section will discuss the research method and strategies that will be employed in order to address the above formulated research questions.

4.3.4: Research Method

Research methods are the various procedures, schemes and algorithms used in research. All the methods and processes used by a researcher during a research study are referred to as the research methods. These processes include the theoretical procedures, experimental studies, numerical schemes, data collection, statistical analyses, etc. (Rajasekar et al., 2013).

Based on Burrell and Morgan's (1979) philosophical assumptions on Ontology, Epistemology and Methodology as discussed in the previous section, this research study will be conducted under the framework of positivist's paradigms. The positivist's paradigm will be linked to the positive accounting theory discussed in chapter three, to examine the reaction of the Oil and Gas companies to changes in accounting policy. This reaction will be measured in terms of changes in the accounting numbers, financial ratios and other industry specific performance measures after the transition from GAAP to IFRS. The positivist's paradigm will also be linked to the decision usefulness theory in analyzing the standards-setting objectives of IASB in developing high quality accounting standards and to examine the relationships between Oil and Gas companies and the Nigerian Government in terms of JVs and PSCs as it relates to taxes, royalties, bonuses and profit Oil split. These relationships will be examined by administering questionnaires to CEOs of Oil and Gas companies, staff of accounting governing bodies like the FRC, professional accountants, Finance Directors and preparers of Oil and Gas companies financial statements, financial analysts and other key stakeholders in the adoption and implementation of IFRS in Nigeria.

In an attempt to address the formulated research questions with reference to nature of reality, this study will adopt the ontological position of realism which holds the assumption that the social world exists independently of an individual's appreciation of it (Burrell and

Morgan, 1979). The individual is seen as being born into and living within a social world which has a reality of its own (Burrell and Morgan (1979). The nature of reality is objective and is regarded as being independent of the individual researcher. Therefore, based on the core objectives of this study, the best approach to attain knowledge in this research is to adopt the nomothetic methodological approach. Under this philosophy, the researcher assumes that there is a distinct structure to the world and perceives reality as independent of the researcher.

This approach revolves around research being based on systematic protocols and techniques such as; analysis of data and surveys of questionnaires that focus on processes of testing hypotheses in accordance with the rules of scientific precision (Burrell and Morgan, 1979). The application of this method will enable an in-depth assessment and examination of the cause and effect relationships pertaining to accounting policy shifts and the ultimate financial statements effects. More specifically, this research contains an objective assessment of the reaction of Oil and Gas companies to the adoption and implementation of IFRS. This is achieved by the analysis of the changes in the accounting numbers, financial ratios and industry specific performance measures of Oil and Gas companies as discussed under the framework of decision usefulness theory. This research therefore derives knowledge empirically from both content analysis of the annual audited financial statements of listed Oil and Gas companies and the objective analysis of questionnaire responses administered to the key stakeholders in the adoption and implementation of IFRS in the Oil and Gas sector.

The philosophical standpoint of this research will therefore be based on a combination of the realist's ontology, positivist's epistemology, voluntarist's assumption about human nature and a nomothetic methodological framework. These assumptions will lead the researcher to position himself within the positivist's paradigm as postulated by Burrell and Morgan (1979).

However, it is important to note that at the initial stage of this research, the study was designed under the premise of positivist's and interpretivist's methodological frameworks (quantitative and qualitative research). The objective was to conduct a statistical analysis of accounting numbers, financial ratios and industry specific performance measures of Oil and Gas companies, administer questionnaires and statistically analyse the responses under the quantitative research. Interviews will then be conducted on the key stakeholders in the adoption and implementation of IFRS and the results analysed under the qualitative research. However, because of the envisaged difficulties in accessing the majority of the stakeholders, funding and other resource constraints in conducting the interviews and the need to abide by Abertay University regulations to complete this research study within the stipulated four year period constrained the researcher to narrow the study to a purely quantitative research. Moreover, the objective statistical analyses of the accounting numbers, financial ratios, industry specific performance measures and the questionnaire responses under the premise of the positivists philosophy will provide a more robust and in-depth assessment of the impact of the adoption and implementation of IFRS on the financial statement of listed entities compared to the subject analysis of the interviews.

The next section will discuss the research design with emphasis on the types of data necessary for this research study, the data collection instruments and the statistical analyses methods.

4.4: RESEARCH DESIGN

As emphasised earlier, a quantitative research will be conducted which will involve the collection and statistical analyses of primary and secondary data. The secondary research will require the computation, analysis and comparison of the statistical significance of the differences of accounting numbers and financial ratios computed from the annual audited

financial statements of Oil and Gas companies before and after the adoption and implementation of IFRS. The primary research however, will entail the administering of questionnaires to key stakeholders in the adoption and implementation of IFRS in Nigeria. The responses from administering these questionnaires will then be analysed using SPSS descriptive statistics.

4.4.1: Quantitative Research

Quantitative research has been described in accounting literature as a process of explaining phenomena by collecting numerical data that are analysed using mathematically or statistically based methods (Aliaga and Gunderson, 2000). In this type of research, numerical data is collected, analysed and interpreted to give a meaningful description of the event. Quantitative research is generally numerical in nature, is statistically reliable and is projectable to a broader population. Quantitative research is based on Burrell and Morgan's (1979) positivists' ideology of the researcher as independent being that can objectively study the physical world by developing reliable measurement instruments in order to uncover the truth about reality and how the world works. The various types of quantitative research designs are discussed as follows.

Types of Quantitative Research:

Exploratory: This type of research is conducted on a concept, people or situation the researcher has little or knowledge about. It involves qualitative procedures like observations, interviews, focus group discussions etc. in the collection and analysis of data.

Descriptive: This type of research is conducted on a concept, people or situation that the researcher certain level of knowledge and familiarity with, but just wants to describe what he

has found or observed. It requires the quantitative or qualitative or mixed method approach to data collection and analysis.

Explanatory: This type of research is however conducted on a concept, people or situation that involves quantitative statistical approaches that require the deriving and testing of hypothesis from available theories.

Based on the above classifications, the present research falls under the explanatory research category that requires the collection of primary and secondary data, formulation of research questions, developing and testing hypotheses in order to adequately address the formulated research questions. In line with the research methodology, two forms of quantitative research will be conducted. The first quantitative research will involve the collection of secondary data from the annual audited financial statements of Nigerian and African listed Oil and Gas companies. The collected data will then be subjected to various computations, relevant statistical and econometric measures and other statistical analyses. The second part of the quantitative research will involve the design and administration of questionnaires to the key stakeholders in the adoption and implementation of IFRS in the Oil and Gas sector in Nigeria. The questionnaire responses will then be subjected to descriptive statistical analyses. The statistical analyses results obtained from the two approaches will then be compared. It is expected that the results from the primary data analysis will corroborate the findings from the secondary data analysis.

4.4.2: Rationale for Quantitative Research

The primary objective of this study is to investigate the impact of the adoption and implementation of IFRS on the financial statements of listed Oil and Gas companies. Taking into cognisance the unique nature of the Oil and Gas sector discussed earlier and the diverse nature of the formulated research questions, it is evident that neither the statistical analysis of

primary data nor the statistical analysis of secondary data alone can provide sufficient, adequate and reliable framework in testing the developed hypotheses and addressing the formulated research questions. It is therefore essential to employ a combination of approaches under the positivist's framework that will adequately contain all the research issues identified, enable the collection and analysis of the necessary data and the interpretation of the findings. The purpose of using a combination of research methods in investigating a phenomenon as argued by Johnson and Onwuegbuzie (2004) are as follows;

Triangulation:

The secondary and primary research methods will be combined to triangulate so that the findings from both approaches will be mutually corroborated. The descriptive analysis results from the questionnaire analysis will be used to corroborate the findings of the content analysis of the financial statements of the Oil and Gas companies. It is expected that the findings from the secondary and primary research methods will be mutually inclusive.

Offset:

Combining strands of primary and secondary data analyses methods is expected to offset their weaknesses, thereby capitalising on the strengths of both methods. It is expected that the weaknesses of the content analysis of the financial statements in terms of sample size and any error thereof will be offset by the strengths of the questionnaire analysis approach and vice-versa.

Completeness:

Employing both primary and secondary statistical analyses methods will bring together a more comprehensive account of the phenomena being investigated. Applying the primary and secondary methods together will provide a comprehensive platform to address

the robust research questions and test the hypotheses considering the nature of Oil and Gas sector.

Different Research Questions:

The primary and secondary research methods will be applied in the study to address the different research questions as appropriate. Each of the research questions is unique and can only be addressed by either the primary or secondary statistical analysis method or a combination of the two methods.

Explanation:

The findings from the descriptive statistical analysis of the questionnaire responses will be used to explain the findings generated by the content analysis of the financial statements and vice versa. Since the content analysis method involves mostly numbers and statistical figures, some of the results of the primary descriptive analysis results will be used to explain the meanings of these figures and numbers.

Instrument Development:

Primary method is employed to develop questionnaires and scale the responses while the secondary method is used to compute and compare the statistical significance of the differences of the mean and median values of the accounting numbers and financial ratios before and after the adoption and implementation of IFRS.

Credibility:

Employing both approaches enhances the integrity and quality of the findings and the overall credibility of the research. When the two methods are applied concomitantly, the study will be able to explore all possible means of addressing the research questions and thus enhance the integrity of the research findings.

Illustration:

Primary research approach will be used to illustrate the secondary research findings (putting 'meat on the bones' of 'dry' content analysis findings) in terms of accounting quality, ease of preparation and presentation of financial statements and ease of comparison of the financial statements among competitors across the oil and Gas sector.

The next sections will discuss the primary data collection and analysis methods adopted in this study.

4.4.3: Primary Data Collection:

Primary research uses data that has been collected directly from the source. Such data sources include interviews, case studies, questionnaires etc. administered by the researcher in order to get first-hand information on the phenomena being investigated. The data from primary sources are believed to be of higher quality, more reliable and more authentic compared to data obtained from secondary sources. In the primary research, questionnaire has been identified as the most appropriate data collection instrument for this research based on the nature of the research and the unique characteristics of the Oil and Gas sector as discussed earlier. To enable the research to accommodate the various key stakeholders in the adoption and implementation of IFRS in the Oil and Gas sector in Nigeria, three categories of the questionnaires will be designed and about 100 of these questionnaires will be administered to the three categories of respondents. The first category are the Chief Executive Officers of Oil and Gas companies, the second category are the Auditors of Oil and Gas company financial statements and the third category are the Accountants, Finance Directors and other preparers of Oil and Gas companies financial statements, financial analysts, professional accountants, staff of accounting governing bodies and other stakeholders in the adoption and

implementation of IFRS. The designed questionnaires will then be subjected to validity and reliability analyses in order to determine the degree of consistency and accuracy with which the questionnaire measures the variables it was designed to measure.

In order to ensure that a range of perspectives are obtained, the primary focus will be on experienced and qualified Oil and Gas personnel, financial analysts, CEOs of Oil and Gas firms, auditors of Oil and Gas firms' financial statements, staff of accounting regulatory agencies, Senior partners of accounting firms, accounting regulatory bodies and other stakeholders in the adoption and implementation of IFRS in Nigeria. These respondents are expected to have the deepest knowledge and expertise relevant to the financial reporting implications of IFRS adoption and the application of the new accounting standards. Furthermore, the selected respondents invariably have a key role in overseeing IFRS implementation within their respective organizations. The responses collected from administering questionnaires will be analysed using SPSS statistical packages and the statistical descriptive analysis results will be used to form the bases of conclusion on the impact of IFRS adoption on the quality and comparability of the financial statements, ease of preparation and presentation of the financial statements to the management and other users as well as the impact of the adoption of the new standards on the contractual relationships between Oil and Gas companies and the Nigerian Government in terms of JVs and PSCs as it relates to taxes, royalties and Profit Oil Split.

Data Collection Instruments:

The questionnaire for the primary investigation will be carefully constructed taking into consideration the identified knowledge gap in literature that led to the formulation of the six research questions in the previous chapter. The questionnaires will be designed in such a way that all the research questions that may not be addressed by the secondary data analysis

will be captured and addressed by the primary data analysis. The questionnaires will be administered either online or by hand delivery to the key stakeholders in adoption and implementation of IFRS in Nigeria as follows. Chief Executive Officers (CEOs) of Oil and Gas companies - 10, Finance Directors/Accountants and other preparers of Oil and Gas companies financial statements - 20, Accounting Regulatory Bodies - 12, Professional Accountants 18, Financial Analysts - 8, Auditors of Oil and Gas firms and other stakeholders in the adoption and implementation of IFRS in the Oil and Gas sector - 32 as shown in Table 4.4 below.

Table 4.4: Proposed Questionnaire Grid:

TARGET RESPONDENTS	NUMBER OF QUESTIONNAIRES
Chief Executive Officers (CEOs)	10
Finance Directors/Accountants	20
Internal/External Auditors	32
Accounting Regulatory Bodies	12
Professional Accountants	18
Financial Analysts	8
TOTAL QUESTIONNAIRES	**100**

Validity and Reliability of the Questionnaire:

The homogeneity, reliability and internal consistency of the questionnaires will be tested using SPSS reliability analysis in order to determine the Cronbach's alpha. Alpha was developed by Lee Cronbach in 1951 to provide a measure of the internal consistency of a test or scale; it is expressed as a number between 0 and 1 (Dennick and Tavakol, 2011). Alpha is the probability of falsely rejecting a null hypothesis. Internal consistency will be determined before the test is applied in order to ensure validity. The standardized alpha reliability coefficient of 0.70 or higher is considered "acceptable" in most social science research situations for the survey to have strong internal validity (Nunally, 1978; Cohen et al., 1988).

This research will consider an alpha value of 0.7 - 0.8 (70% to 80%) reliability with an error variance of 0.51* - 0.36**[19] respectively.

Participants to this survey will be selected based their financial reporting experience, qualifications and affiliation to the Oil and Gas sector. Most of the questions will be related to the level of knowledge and understanding of IFRS, expected impacts of IFRS on disclosure of accounting information, provision for decommissioning and environmental rehabilitation expenditures, and impact of IFRS adoption on E&E expenditures and other key performance measures of Oil and Gas companies. Questions related to ease of preparation and presentation of financial statements to management and other stakeholders, ease of comparison and ease of audit of IFRS financial statements will be included in the questionnaires. The perceived benefits of adopting IFRS and personal experience of the participants regarding the adoption and implementation of IFRS and difficulties and challenges experienced and any reservations by the participants as a result of the adoption of IFRS and relevant information that would be useful in investigating the impact of the adoption and implementation of IFRS on the financial statements of Nigerian listed Oil and Gas companies in order to test the research hypotheses and address the formulated research questions will be included.

Ethical Consideration:

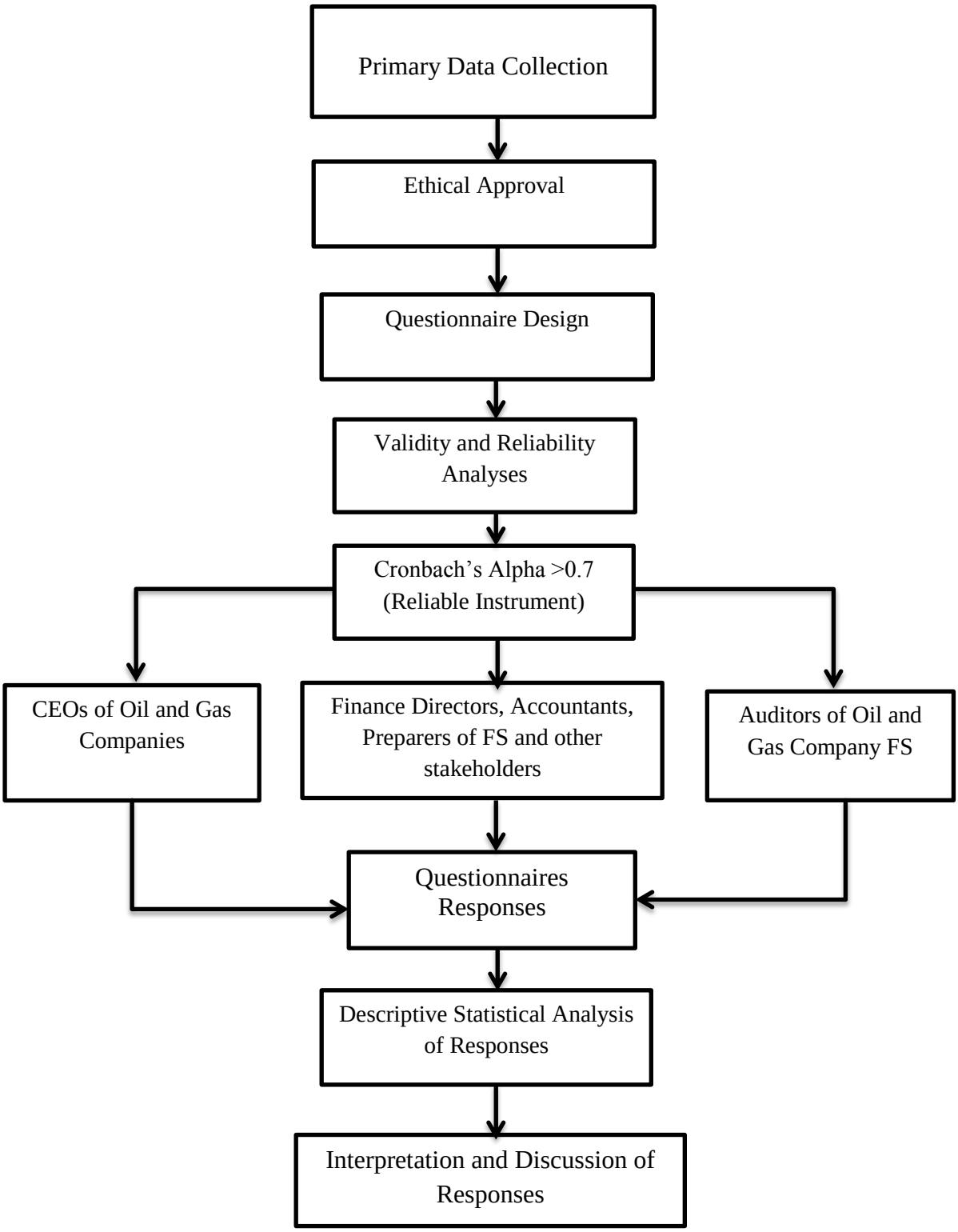
In order to comply with the guidelines and ethical requirements of Abertay University regarding empirical research, all the necessary ethical issues pertaining to this research will be strictly adhered to. At the proposal stage of this research, all ethical issues have been taken into consideration and all documents regarding ethical approvals have been duly executed

[19] *0.70×0.70 = 0.49; 1.00 – 0.49 = 0.51* and 0.8x0.8 = 0.64; 1.00 – 0.64 = 0.36***

and the necessary ethical approvals and consent to conduct this research have been granted by the University authorities. Moreover, before any questionnaire is sent out or any interviews conducted, the various target respondents will be availed the details of the research and their consent to participate sought in good time. If necessary, a duly signed official introduction letter from the University authorities to the target respondents will be obtained in order to confirm the identity of the researcher and the authenticity of the research. All official details of the respondents including names, organization and status will be kept anonymous in compliance with the ethical requirements.

The systematic approach to primary data collection and analysis adopted for this research is depicted in Figure 4.1 below.

Figure 4.1: Primary Data Collection and Analysis



4.4.4: Secondary Data Collection:

Secondary data are data that had already been gathered and recorded prior to and for the purpose other than the current study. Such data may include annual reports, published thesis, financial statement data etc. These data sources are distinct from the primary sources discussed earlier. The main source of data for the secondary research are from 12 audited annual financial statements of listed Oil and Gas companies from Nigeria and 35 audited annual financial statements of listed Oil and Gas companies from other Crude Oil producing African countries that have fully adopted the IFRS. In total therefore, 47 audited annual financial statements of listed Oil and Gas companies will be examined. The financial statements will be obtained directly from the Nigerian Stock Exchange (NSE), Nigerian Extractive Industry Transparency Initiative (NEITI), Nigerian National Petroleum Corporation (NNPC), Stock Exchanges in Africa where Oil and Gas companies have been listed and other reliable sources.

Four different types of analyses will be conducted on the secondary data. First, the accounting numbers, financial ratios and industry specific performance measures computed from the annual audited financial statements of listed Oil and Gas companies three years before IFRS adoption (2009 - 2011) and three years after IFRS adoption (2012 - 2014) will be subjected to Kolmogorov-Smirnov and Shapiro-Wilk's (Shapiro & Wilk, 1965: Razali & Wah, 2011) tests for normality. The purpose of these tests is to check the normality of the collected data by viewing the Skewness and Kurtosis values of the computed variables. The results of these analyses will indicate the type of statistical analysis to conduct on the accounting numbers and financial ratios. Second, a paired samples t - test (parametric analysis) will then be conducted where the mean values of all the variables computed three years before IFRS adoption (2009 - 2011) and three years after IFRS adoption (2012 - 2014)

will be analysed and compared. Third, a Wilcoxon Signed Ranks z - test (Non-parametric analysis) will be conducted where the median values of the variables computed three years before IFRS adoption (2009 - 2011) and three years after IFRS adoption (2012 - 2014) will be analysed and compared. The statistical significance of the differences of the mean and median values of the accounting numbers, financial ratios and industry specific performance measures under GAAP and IFRS will then be compared. Finally, Gray's (Gray 1988) Conservatism Index analysis of the conservatism of the Oil and Gas companies in terms of the recognition, measurement and classification of their assets, liabilities, revenues and expenditure under the GAAP and IFRS regimes will be performed using the Gray's (Gray, 1988) Conservatism Index. Literature has documented that various studies like Goodwin and Ahmed (2006), Jermikowicz et al. (2007), Agca and Aktas (2007), Callao et al. (2007), Dunne, et al. (2008), Lantto and Sahlstrom (2009), Gaston et al. (2010), Iatridis et al. (2010), Kabir et al. (2010), Finnigham (2010), Pazarkis et al. (2011) and Dimitrios (2013) applied similar approach to examine the impact of IFRS adoption on the financial statements of listed entities.

Content Analysis of Financial Statements:

Financial ratios are used by Investors, bankers, financial analysts and other stakeholders to assess the financial condition and performance of a company, establish covenants in lending agreements or for other commercial arrangements (Lantto and Sahlström, 2009; Blanchette, 2011). The main measures commonly used in practice to assess firms' performance are; the Liquidity, Leverage, Investment, Coverage and Profitability. However, because of the complex and unique nature of Oil and Gas sector, specific industry performance measures will also be computed and analysed for the purpose of this study. The following sixteen performance measures and Industry specific accounting numbers (V01 to

V16) will be computed and analysed in the course of this study; the Current Assets (CA), Total Assets (TA), Total Liabilities (TL), Inventories (INV), Equity (EQUI), Gross Profit (GP), Gross Profit Margin (GPM), Assets Turnover (ATO), Return on Assets (ROA), Return on Invested Capital (ROIC), Return on Working Capital (ROWC), Current Ratio (CR), Quick Ratio (QR), Exploration and Evaluation expenditures (E&E), Decommission expenditures (DECOM) and Average Daily Crude Oil Production Cost/barrel (ADPC). Results from these analyses will be used to address the formulated research questions 1 - 4 and test the corresponding research hypotheses H_{01} - H_{016} as appropriate.

4.4.5: Methods of Statistical Analysis

There are various statistical analyses approaches used in accounting research to analyse and investigate changes accounting numbers and financial ratios. Each technique has its unique feature and is applied depending on the nature of the data and the purpose of the research as depicted in Table 4.2. For example, a parametric paired samples t-test is applied to compare the means of variables in a before and after situation. Wilcoxon Signed rank (z-test) is the non-parametric equivalent of paired samples t-test and is used to compare median values of dependent variables. A parametric Pearson's Product Moment Correlation Coefficient and its alternative version, the non-parametric Spearman's Rank Order Correlation (rho) are used to investigate the linear relationships between two or more variables that are normally or not normally distributed respectively. A parametric independent samples t-test is used to compare the means of normally distributed variables for two independent groups. The Mann Whitney U-test is the non-parametric version to the independent samples t-test. A parametric one way analysis of variance (ANOVA) is used on a categorical independent variable that is normally distributed to test for the differences in the means of three or more groups of dependent variable broken down by the level of the independent variable. The non-parametric versions of one way ANOVA are the Kruskal

Wallis and Friedman's tests. Other statistical analysis techniques used in accounting research include the McNemar test, Regression, Factor analysis, Discriminant analysis, Canonical correlation etc. as depicted in Table 4.5 below.

Table 4.5: Quantitative Research Design

Objective	Parametric Statistics	Non-Parametric Alternative	Essential Features
Exploring relationship between variables	Pearson's Product Moment Correlation Coefficient	Spearman's Rank Order Correlation (rho)	One sample with scores on two different measures, or same measure at time 1 and time 2
	None	Chi Square	Number of cases and not score is considered
	Multiple Regression	None	One sample with scores on all measures. Independent vs. dependant variables
	Factor Analysis	None	One sample, multiple measures
Comparing Groups	**Paired Sample T-test**	**Wilcoxon Signed Rank Z-test**	**Same variables on two different occasions.**
	Independent Sample t-test	Mann-Whitney U-test	Differences between two independent groups on a continuous measure.
	One-way between Groups ANOVA	Kruskal - Wallis	Three or more groups: different people in each group
	One-way repeated Measures ANOVA	Friedman Test	Three or more groups: same people on two different occasions
	Two-way between groups ANOVA	None	Two or more groups for each independent variable: different people in each group

Source: Adopted from Pallant, J. (2007)

Based on the unique features of the various statistical analyses approaches described above, the parametric analysis (paired sample t-test) and its equivalent non-parametric (Wilcoxon signed rank tests) have been considered as the most suitable and appropriate tests to conduct for this study. These tests will enable the researcher to conduct comprehensive and objective computations and analyses of the statistical significance of the differences in the mean and median values of the accounting numbers, financial ratios and industry specific performance measures of Oil and Gas companies before and after the adoption and

implementation of IFRS. A third test, Gray's (Gray, 1980) conservatism index will however be conducted to compare the conservatism index of the Oil and Gas companies under GAAP and IFRS regimes.

There are various modern software packages that are used in statistical data analysis. The most commonly used are the SPSS, Minitab, Genstat, Stata, R etc. that are generally reliable and easy to use. However, the data for this study will be analysed using the SPSS based on the nature of the data, objectives of the research and the availability of the statistical package for the analyses. The three main statistical analyses that will be conducted in this study are discussed as follows.

Paired Samples T-Test:

A paired samples t-test is a parametric test used in accounting research to compare two population means where there are two samples in which observations in one sample can be paired with the observations in the other sample. Typically, this type of test is conducted on before-and-after observations on the same subjects. This study will apply the paired samples t-test to compare the mean values of the accounting numbers, financial ratios and industry specific performance measures of Nigerian and African listed Oil and Gas companies three years (2009 - 2011) before and three years (2012 - 2014) after the adoption and implementation of IFRS. However, for this test to be valid, the differences in the accounting numbers and performance measures need to be approximately normally distributed, that's follow a bivariate Gaussian distribution. To ensure the validity of this test, normality (Kolmogorov-Smirnov and Shapiro-Wilks) tests will be conducted on the computed variables as highlighted in the previous section.

Wilcoxon Signed Ranks Test:

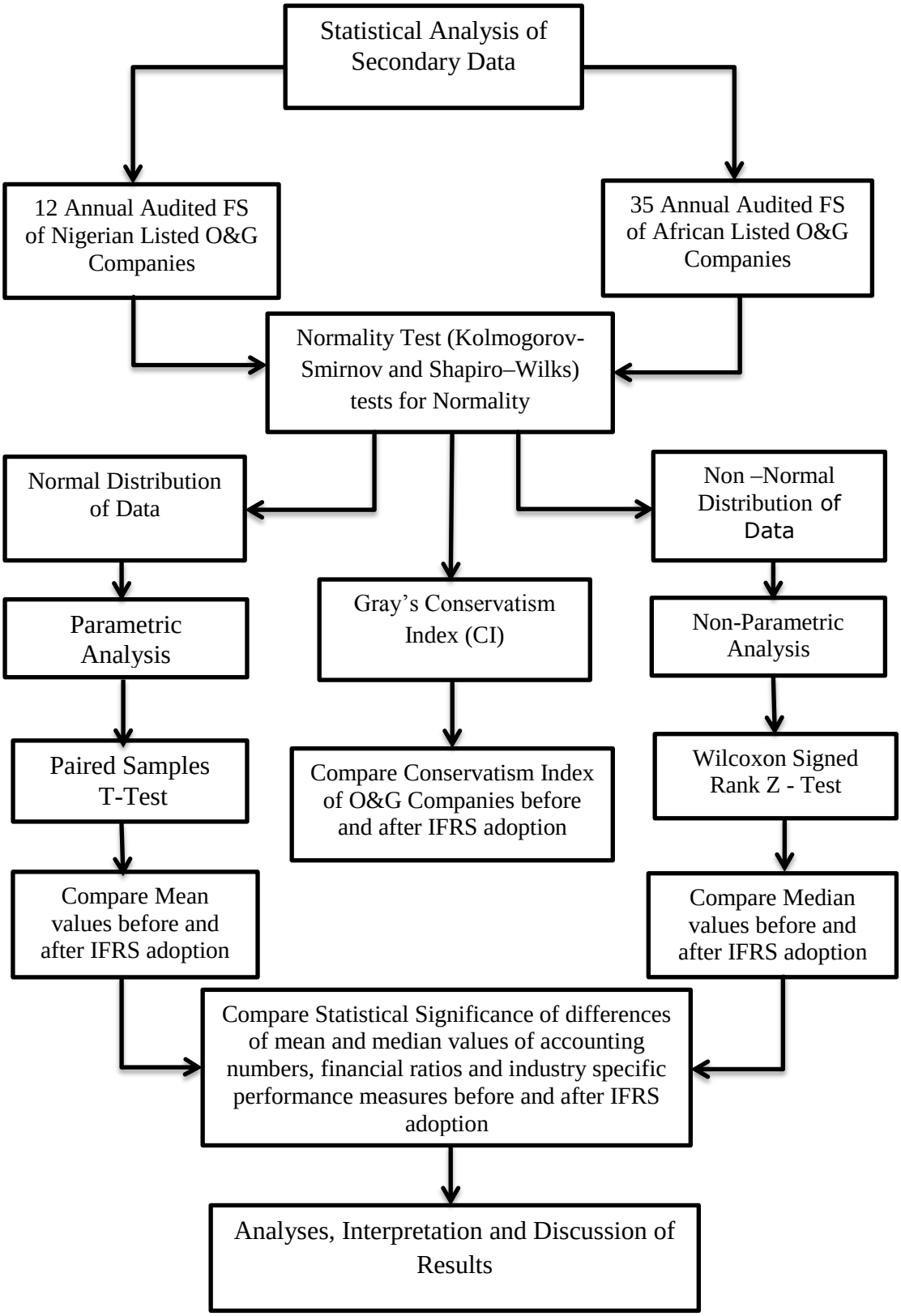
Wilcoxon Signed rank test is a non-parametric test or distribution free test used in accounting research to compare two population medians in a before and after scenario. It is the non-parametric version of paired samples t-test. This test will be applied to compare the median values of the accounting number, financial ratios and industry specific performance measure of Nigerian and African listed Oil and Gas companies three years (2009 - 2011) before and three years (2012 - 2014) after the adoption and implementation of IFRS. This type of test does not require the data to follow a bivariate Gaussian distribution or be normally distributed.

Gray's Conservatism Index:

Gray's Conservatism Index (Gray, 1980) is also known as the Gray's Comparability Index (Weetman et al., 1998). This comparability analysis will be conducted in order to compare the degree of conservatism and prudence of Nigerian and African listed Oil and Gas companies in terms of recognition, measurement and classification of their assets, liabilities, revenues and expenditure under GAAP and their prudence and conservatism index under the IFRS regime. Gray (1980) came up with this index in order to find out whether some countries are more prudent than others in terms of accounting practices.

The systematic approach to secondary data collection and analysis adopted for this research is depicted in Figure 4.2 below.

Figure 4.2: Secondary Data Collection and Analysis



4.5: CONCLUSION:

This chapter discussed the main characteristics of the Oil and Gas sector which distinguishes it from other sectors with emphasis on exploration and evaluation expenditures, contractual relationships between Oil and Gas companies and the host governments and the legal requirement to decommission and rehabilitate the environment after the exploration activities citing the guidance of UNCLOS (1982), IMO (1989) and OSPAR conventions (1999). The chapter then discussed the research methodology adopted in this study taking into consideration the various philosophical assumptions outlined in the model developed by Burrell and Morgan (1979). Based on the unique characteristics of the Oil and Gas sector and the primary focus of this research, the philosophical standpoint of this research will be based on a combination of the realist's ontology, positivist's epistemology, voluntarist's assumption about human nature and a nomothetic methodological framework. These assumptions provided the researcher with the guidance to assume a stand point of the positivist's framework as postulated by Burrell and Morgan (1979).

It was based on the positivist's standpoint the research was designed to incorporate the collection and statistical analyses of primary and secondary data. The secondary data will be obtained from the annual audited financial statements of Nigerian and African listed Oil and Gas companies. The data for the primary analysis will however be collected via questionnaires that will be administered to the key stakeholders in the adoption and implementation of IFRS. A parametric paired samples t-test and non-parametric Wilcoxon Signed Rank test will be performed on the secondary data where the mean and median values of the accounting numbers, financial ratios and industry specific performance measures will be analysed and compared before and after IFRS adoption using SPSS. Descriptive analyses of the primary data will also be conducted using the SPSS. Gray's (Gray, 1980) conservatism

index analysis will then be conducted in order to compare the conservatism index of the Oil and Gas companies under GAAP and IFRS regimes. A triangulation of the results of the primary and secondary data statistical analyses will be performed in order to adequately address the formulated research questions.

In chapter five, the results of the statistical analyses of the secondary data will be presented and discussed.

CHAPTER FIVE:

SECONDARY DATA PRESENTATION AND STATISTICAL ANALYSES

CHAPTER FIVE: SECONDARY DATA PRESENTATION AND STATISTICAL ANALYSES

5.1: INTRODUCTION:

In chapter four a detailed methodology and methods of data collection and analysis was presented and discussed. More specifically, it was resolved that the researcher will assume the positivist's standpoint and the research will be conducted under the premise of positivist's philosophical framework as outlined by Burrell and Morgan (1979) taking into consideration the research objectives, research methods and the underlying research philosophical assumption. The sources of primary and secondary data, the methods of data collection and the specific statistical data analyses techniques were clearly highlighted and discussed.

In this chapter a detailed statistical analyses of the GAAP and IFRS values of the accounting numbers, financial ratios and industry specific performance measures computed from the annual audited financial statements of 47 extractive sector listed entities will be presented and discussed. In section 5.2 a detailed characteristics of the collected data and the sample size are discussed. Section 5.3 discusses the normality test results for the Nigerian and African firms. While section 5.4 discusses the parametric and non-parametric analyses conducted on the collected data. In section 5.5 the null research hypotheses are presented and the methods of testing the hypotheses are discussed. Section 5.6 presents the statistical analyses of the GAAP and IFRS values of the accounting numbers, financial ratios and industry specific performance measures of Nigerian and African listed companies. A summary of the statistical analyses and research findings are discussed in section 5.7.

5.2: SAMPLE CHARACTERISTICS

In order to test the developed hypotheses and address the formulated research questions, a total of 100 extractive sector companies from the 14 African countries that adopted the IFRS were selected for this study. However, because of the inaccessibility of the annual audited financial statements of some of the companies, only 47 listed extractive sector firms from 7 African countries were eventually examined. Twelve (12) of these companies were from Nigeria while the remaining thirty five (35) were extractive sector companies from other African Countries that have adopted the IFRS. The balance sheet sizes of these firms differ considerably with the large firms having a total asset value significantly higher than those of the smaller firms. Three of the firms analysed reported negative equity under IFRS while four firms reported considerable net losses in their income statements. The global financial crisis of 2008 may have significantly influenced the financial situation of some of the firms especially firms in Ghana and Botswana that adopted the IFRS in 2007. The collected data from the financial statements of these firms was subjected to Kolmogorov-Smirnov and Shapiro-Wilk's (Shapiro & Wilk, 1965: Razali & Wah, 2011) tests for normality which is discussed in the next section.

5.3: TEST OF NORMALITY OF DATA

Normality tests are conducted on the collected data in order to avoid the common statistical errors in data analysis. Literature has shown that about 50% of published articles have at least one error (Curran-Everett & Benos, 2004). Many of the parametric statistical procedures like correlation, regression, t-test and ANOVA are based on the assumption that the data follows a normal distribution also called a Gaussian distribution. The assumption is that the population from which the samples are taken are normally distributed. With large

sample sizes (>30 or 40), the violation of the assumption of normality does not cause any problems (Pallant, 2007). This implies that a parametric procedure can be conducted even when the data are not normally distributed (Elliot and Woodward, 2007). Data is said to be normally distributed when the probability of rejecting the null hypothesis (H_0) is greater than .05 (P >.05) and the Skewness and Kurtosis values are in the region -1.96 to +1.96.

A visual inspection of their histogram and Q-Q plots and box plots from the normality tests results showed that most of the accounting numbers and financial ratios of both IFRS and GAAP have high Skewness and Kurtosis values, therefore statistically different from a Gaussian distribution with (P<.05) (appendix 5.1). This signifies that the data was not normally distributed. However, despite the data violating the assumption of normality, a parametric and non-parametric analyses will still be conducted based on the large sample size (>30). Literature has shown that with large sample size, a parametric analysis can be conducted on data not normally distributed (Pallant, 2007). Reports by Ezzamel & Mar-Molinero, (1990) have shown that financial ratios normally have a non-normal distribution. The deviation from normality is attributed to the differences in balance sheet sizes and other specific variables of the companies under investigation. Literature has shown that paired sample t-test (parametric test) is more appropriate to test the significance of the differences of firms' performance measures before and after the adoption of IFRS for a normally distributed data (Punda, 2011). Whereas, for a non-normally distributed data, the alternative non-parametric analysis (Wilcoxon Signed Rank test) was considered more suitable to test the statistical significance of the difference of firms' performance measures before and after the adoption and implementation of IFRS. The next section will discuss the concept of parametric and non-parametric analyses.

The result of the normality test (Kolmogorov–Smirnov and Shapiro-Wilk Tests) on accounting numbers and financial ratios of Nigerian listed Oil and Gas companies is presented in appendix 5.1, while the results of the Kolmogorov-Smirnov and Shapiro-Wilk test for normality on the financial ratios and accounting numbers of African listed Oil and Gas companies are presented in appendix 5.7. The parametric test (appendices 5.4 and 5.10) that assumes a Gaussian distribution and non-parametric test (appendices 5.5 and 5.11) that does not emphasise on Gaussian distribution were conducted simultaneously (appendices 5.6 and 5.12) where the mean and median values of the GAAP and IFRS accounting numbers and financial ratios were compared and the statistical significance of their differences computed.

5.4: PARAMETRIC AND NON-PARAMETRIC ANALYSES

Generally there are two types of tests of significance; the Parametric and Non-Parametric tests as mentioned earlier. The collected data was analysed using both the parametric and non-parametric statistical tests. This is essentially carried out in order to make the research more robust and avoid any potential error of rejecting a true null hypothesis (type I error) or failure to reject a false null hypothesis (type II error).

5.4.1: Parametric Tests

These tests are normally more robust and more powerful than the non-parametric tests because their data are derived from interval or ratio measurements. However to apply the parametric tests of significance, the data should meet the following assumptions as highlighted by Lehmkuhl, (1996):

- The observations must be independent
- The observations should be drawn from normally distributed populations

- These populations should have equal variances
- The measurement scales should be at least interval so that arithmetic operations can be used with them.

5.4.2: Non- Parametric Test

Non-parametric tests however have fewer or less stringent assumptions than the parametric tests. These tests are used when the above assumptions of parametric tests cannot be met, when very small numbers of data are used and when no basis exists for assuming normal distribution of data (Pallant, 2007). The advantage of these tests is that they do not require the assumption of sampling from the Gaussian population. They do not specify normally distributed populations or homogeneity of variance (Pallant, 2007). Non-parametric tests are the only ones usable with nominal data; they are the only technically correct tests to use with ordinal data, although parametric tests are sometimes employed in this case (Elliot and Woodward, 2007). Non-parametric tests may also be used for interval and ratio data (Pallant, 2007). These tests are however less powerful when the data are sampled from Gaussian distribution (Lehmkuhl, 1996). This will lead to smaller p-value and tighter confidence interval when compared to parametric tests (Pallant, 2007).

Effect Size:

Effect size is the degree of association of the variables under investigation. It is often calculated to show the extent to which the two variables are associated with one another. There is a need for calculating the effect size because of the small sample size for this study. The most commonly used effect size statistics are the *partial eta squared (r)* and *Cohen's d* (Cohen, 1988). *Partial eta squared* effect size statistics indicate the proportion of the dependent variable that is explained by the independent variable. Whereas *Cohen's d*, present the differences between groups in terms of standard deviation units. To calculate the effect

size, the *z*-value in Wilcoxon Signed Rank test is divided by the square root of the total number of observations (35 for African firms and 12 for Nigerian firms). The Cohen's *d* is calculated by dividing the differences of the GAAP and IFRS mean values by the standard deviation in a paired sample t-test.

- Wilcoxon Signed-rank test - Effect Size (*r*) = *Z*/Square root of N

Where N = total number of observations (24 for Nigerian firms, 70 for African firms).

- Paired Sample t-test – Cohen's *d (d)* = Mean IFRS – Mean GAAP/Standard Deviation

Table 5.1: Effect Size

Effect Size	**Eta squared (% of variance) - *r***	**Cohen's *d* (Standard deviation)**
Small	.01 or 1%	.2
Medium	.06 or 6%	.5
Large	.138 or 13.8%	.8

Adopted and modified from: Thalhiemer and Cook, (2002)

5.4.3: Gray's Index of Conservatism

Gray's Conservatism Index (Gray, 1980) also known as the Gray's Comparability Index (Weetman et al., 1998) in Table 5.2 was conducted to compare the degree of conservatism of GAAP and IFRS standards in terms of recognition and measurement of accounting numbers and financial ratios of Oil and Gas companies. Gray (1980) came up with this index in order to find out whether some countries are more prudent than others in terms of accounting practices. The Gray's Index of Conservatism is represented by the following formula.

$$IC = 1 - \frac{(IFRS\ Accounting\ Numbers) - (GAAP\ Accounting\ Numbers)}{IFRS\ Accounting\ Numbers}$$

Where; IC is the Gray's Index of Conservatism

Table 5.2: Gray's Index of Conservatism (IC)

IC Scale	Interpretation	
> 1.05	GAAP values are higher than IFRS values	Optimism – IFRS is more cautious than GAAP, more conservative
0.95 – 1.05	There is no Significant difference between GAAP and IFRS values	Neutrality – IFRS adoption has no effect on variables
< 0.95	IFRS values are higher than GAAP values.	IFRS is less prudent than GAAP – less conservative

Adopted from Istrate (2013)

5.5: TEST OF RESEARCH HYPOTHESES

The main purpose of this study is to empirically establish whether the adoption of IFRS has any statistically significant impact on the financial statements of listed Oil and Gas companies. Based on the objectives of this research and in consonance with the research questions (1 - 6) formulated and presented in chapter three, sixteen null hypotheses (H_{01} - H_{016}) have been developed in this chapter in order to address the formulated research questions 1 - 4. The developed hypotheses will be tested in this chapter in order to adequately address the formulated research questions regarding the impact of the adoption and implementation of IFRS on the accounting numbers and performance measures of Nigerian listed Oil and Gas companies and listed Oil and Gas companies from other African countries. Questions 5 & 6 however, will be addressed by the questionnaire analysis results in the next chapter.

5.6: STATISTICAL ANALYSES AND RESULTS

This section will provide a detailed statistical analysis of the computed financial ratios and accounting numbers of Nigerian Oil and Gas firms as well as African listed Oil and Gas firms. The financial ratios and accounting numbers of Nigerian Oil and Gas firms were compared before and after IFRS adoption and the significance of their differences established

using the parametric and non-parametric analyses as explained earlier. The results of these tests were then compared with the results of the analysis of African listed Oil and Gas firms. The results of the descriptive statistics of Nigerian Oil and Gas firms under NG-GAAP and IFRS are presented in appendix 5.2 and 5.3 respectively. The result of the descriptive statistics of African listed Oil and Gas firms under GAAP and IFRS are presented in appendices 5.8 & 5.9 respectively and the results of the analyses are discussed below.

5.6.1: Exploration and Evaluation (E&E) Expenditures

Exploration and Evaluation (E&E) expenditures are those expenditures incurred by Oil and Gas firms in respect of exploration for and evaluation of mineral resources before the technical possibility and the prospect of extracting commercially viable quantities of Oil and Gas resources are established. These costs consist of pre-exploration costs, exploration and evaluation costs, costs of site acquisition, license fees, taxes, G&G costs, costs of drilling exploratory wells etc. IFRS 6**:** *Exploration for and evaluation of mineral resources* is the standard that provides specific extractive sector guidance on how Oil and Gas firms should account for their exploration and evaluation (E&E) expenditures. In Nigeria however, before the adoption of IFRS, SAS 14**:** *Accounting in the petroleum industry (Upstream activities)* and SAS 17**:** *Accounting in the petroleum industry (Downstream activities)* are the two standards that provide this guidance. *IFRS 6* is a temporary standard issued by the International Accounting Standards Board (IASB) and only gives guidance on the E&E phase of Oil and Gas exploration (KPMG, 2011). IFRS 6 refers to neither FC nor SE accounting methods and both NG-GAAP and IFRS allow companies to use either FC or SE method to account for their E&E expenditures. However, differences exist between IFRS and NG-GAAP in terms of the recognition, treatment and measurement of E&E costs. Small Oil and Gas firms favour the FC accounting method, where all E&E costs are capitalised regardless

of whether the exploration operation is successful or not in order to boost their assets and attract investors, while large Oil and Gas companies prefer the SE method that allow the expensing of costs of unsuccessful exploration operation in order to minimise their tax obligation (Malmquist et al., 1990).

Nigerian GAAP SAS 14 and IFRS 6 permit Oil and Gas firms to use either FC or SE methods to capitalise or expense their E&E costs (Cortese, 2009). However, SAS 14 under the SE accounting requires all costs incurred prior to the acquisition of mineral rights and other E&E expenditure not specifically directed to an identifiable structure be expensed when incurred. The immediate expensing of the E&E costs may cause volatility of reported earnings and significantly affect the financial statements of Oil and Gas firms.

Based on the differences in the guidance provided by IFRS 6, SAS 14 and other accounting standards applied by Oil and Gas companies to provide guidance on recognition, measurement and classification of expenditures incurred by Oil and Gas companies in the E&E phase of Oil and Gas exploration and production, taking into consideration the FC and SE accounting method, this research study attempts to address the following research question.

Question 1. To what extent does the adoption and implementation of IFRS affect the Exploration and Evaluation (E&E) expenditures of listed Oil and Gas companies?

In order to establish the impact of the discrepancies of the guidance provided by IFRS 6, SAS 14 and other standards used by Oil and Gas companies to account for their exploration and evaluation expenditures on the financial statements and to adequately address the above formulated research question taking into consideration the Nigerian and African

listed Oil and Gas companies, this research attempts to investigate the following four null hypotheses (H_{01} - H_{04}).

H_{01}: There is no statistically significant difference between the mean values of Exploration and Evaluation (E&E) expenditures of Nigerian listed Oil and Gas companies before and after the adoption and implementation of IFRS.

H_{02}: There is no statistically significant difference between the median values of Exploration and Evaluation (E&E) expenditures of Nigerian listed Oil and Gas companies before and after the adoption and implementation of IFRS.

H_{03}: There is no statistically significant difference between the mean values of the Exploration and Evaluation (E&E) expenditures of listed African Oil and Gas companies before and after the adoption and implementation of IFRS.

H_{04}: There is no statistically significant difference between the median values of the Exploration and Evaluation (E&E) expenditures of listed African Oil and Gas companies before and after the adoption and implementation of IFRS.

The parametric (Paired Samples t-test), non-parametric (Wilcoxon Signed Rank test) and Comparability Analyses (Gray's Conservatism Index analysis) conducted on the Exploration and Evaluation expenditures of listed African and listed Nigerian Oil and Gas companies reveals the following results.

Table 5.3a: Exploration and Evaluation Expenditures - Africa

Statistical Analysis of E&E Expenditures and Gray's Conservatism Index (IC) – African Companies (Million USD)				
n=35	**GAAP E&E**	**IFRS E&E**	**Differences**	**IC**
Mean	862	1161	299	0.7424
Median	522	624	102	0.8365
SD	139.7	205	65.3	0.6814
t = -3.351, p = .002			*z = -4.333, p = .000*	

Table 5.3b: Exploration and Evaluation Expenditures - Nigeria

Statistical Analysis of E&E Expenditures and Gray's Conservatism Index (IC) – Nigerian Companies (Million USD)				
n=12	**GAAP E&E**	**IFRS E&E**	**Differences**	**IC**
Mean	154.7	210.6	55.9	0.735
Median	108.3	131.7	23.4	0.822
SD	111.1	158.5	47.4	0.701
t = -2.667, p = .022			*z = -2.825, p = .005*	

As Tables 5.3a and 5.3b illustrate, there is a statistically significant increase in the E&E expenditures of both listed Nigerian and African Oil and Gas companies incurred after the transition from GAAP to IFRS. However, the increase in the median values of E&E expenditures in Africa as a whole is relatively more significant compared to the increase in the median values of E&E expenditures in Nigeria. The mean values of E&E expenditures of listed Nigerian Oil and Gas companies increased from 154.7 to 210.6, t = -2.667, p<.05 and that of listed African Oil and Gas companies increased from 862 to 1161, t = -3.351, p<0.5 while the median values of listed Nigerian Oil and Gas companies increased from 108.3 to 131.7, z = -2.825, p<.05 and the median values of the listed African Oil and Gas companies increased from 522 to 624, z = -4.333, *P<.05.* In terms of conservatism however, Nigerian companies are more conservative (CI = 0.822) in respect of the recognition, measurement and classification of their E&E expenditures compared to African firms (CI = 0.8365). This result shows that the mean and median values of E&E expenditures of listed Nigerian and African Oil and Gas companies have significantly increased after the transition from GAAP to IFRS as evidenced by t = -3.351, p<.05, z = -4.333, p<.05 for the African firms and t = -2.667, p<.05 and z = -2.825, p<.05 for the Nigerian firms.

The increases in the mean and median values of E&E could be attributable to the application of IFRS 6 that provides a different guidance in the recognition, measurement and classification of E&E expenditures from the guidance of Nigerian GAAP standard SAS 14.

This standard is historical costs based standard while the fair value orientation of IFRS 6 encourages fair valuation of revenues and expenditures of Oil and Gas companies. The increases in the values of E&E could also be as a result of the freedom granted Oil and Gas firms to either capitalise or expense their costs of unsuccessful exploration operation by the IASB under the SE accounting method. Large Oil and Gas companies mostly favour to expense their costs of unsuccessful E&E under the SE accounting method in order to reduce their tax obligation while small Oil and Gas companies prefer to apply the FC accounting method and capitalise all costs of E&E regardless of the outcome of the exploration and evaluation operation.

Literature has shown that the adoption and implementation of IFRS increases the flow of investment (Chen et al., 2011; Prochazca, 2012). It on this basis that the significant increases in the mean and median values of E&E is attributable to the significant increase in investments in Oil and Gas exploration in terms of site acquisition, mining licence applications, and investment in G&G operations, surveys and drilling activities.

The results thus obtained are compatible with ICAEW report of 2007 (ICAEW, 2007) on the implementation of IFRS by EU listed firms which shows that the application of IFRS 6 encourages Oil and Gas companies in the EU to shift from FC accounting method to SE accounting method. This suggests that Oil and Gas companies in the EU are expensing more of their costs of unsuccessful E&E expenditures after the transition from GAAP to IFRS which results in significantly higher E&E expenditures under the IFRS compared to the E&E expenditures under GAAP.

Based on the results of the analyses therefore, the stated hypotheses H_{01}- H_{04} are hereby rejected and the alternative hypotheses (H_{a1}- H_{a4}) accepted, which implies that "there are statistically significant differences between the mean and median values of E&E

expenditures of Nigerian listed and African listed Oil and Gas companies incurred under GAAP compared to the IFRS values.

In conducting the literature search, no prior study was found that investigated the association between the adoption and implementation of IFRS and the Exploration and Evaluation expenditures of Oil and Gas companies. Presumably therefore, this is the first empirical research to investigate this phenomenon and in my view as the researcher, the significant increase in the E&E expenditures of Oil and Gas companies implies that more resources are being directed towards the exploration and evaluation of Oil and Gas resources which is a positive development for the Nigerian Oil and Gas sector and the Nigerian economy in general. However, as indicated in chapter three, majority of the Oil and Gas companies operating in Nigeria and other African countries apply the SE method to account for their costs of exploration and evaluation activities after the adoption and implementation of IFRS.

The FC accounting method requires all costs associated with the E&E of mineral resources be capitalised regardless of whether these activities lead to the discovery of commercial quantities of Oil and Gas resource, while the SE accounting method requires Oil and Gas companies to expense all costs associated with unsuccessful E&E activities. A switch from FC to SE accounting method implies an increase in E&E costs, decrease in retained earnings and profitability which eventually results in lower taxes and royalty remittances to the Nigerian Government. Overall however, a significant increase in the E&E expenditures of Oil and Gas companies after the adoption and implementation of IFRS is an indication of increased investment in the Nigerian Oil and Gas sector which will eventually translate to a significant growth and development of the sector in the nearest future.

5.6.2: Decommissioning Expenditures

Decommissioning is the act of dismantling, removal or disassembling of redundant Oil and Gas installations (rigs, wells, pipes, storage tanks etc.) after the completion of exploration and production activities or when it has been established that commercially producible quantities of Oil and Gas will not be available even under enhanced exploration methods. Oil and Gas companies are legally requires to decommission their Oil and Gas installations according to Article 60(3) of United Nations Convention on the Law of the Sea (UNCLOS, 1982), which came into force in 1992, the International Maritime Organisation (IMO) guidelines of 1989 and the Oslo and Paris Convention (OSPAR, 1999) for the Protection of the Marine Environment of the North East Atlantic.

IFRS recognizes the PV of the cost of dismantling, removal of Oil and Gas installations or the costs of restoring the Oil and Gas field as a liability and the corresponding costs capitalized as part of the related PP&E. Whereas NG-GAAP requires Oil and Gas firms to make provision for the costs of dismantling of Oil and Gas installations and environmental restoration as the estimated future costs less the expected salvage value of the dismantled equipment amortised over the useful life of the equipment. Under the NG - GAAP (SAS 23: *Provisions, contingent liabilities and contingent assets*), there is no requirement for downstream Oil and Gas firms to account for their future decommissioning costs. SAS 23 however, requires Oil and Gas firms to make provision for restoration and abandonment costs of their offshore installations less estimated salvage values of the assets/equipment based on the best availability estimate. Under IFRS, *IFRIC 1: Changes in existing decommissioning, restoration and similar liabilities and* IAS 37*: Provisions, contingent liabilities and contingent assets* require Oil and Gas firms to make provision for their future decommissioning costs as the 'present value of the future costs of decommissioning of their storage tank farms and other major Oil and Gas installations'.

Based on the different guidance provided by IFRIC 1, IAS 37, SAS 23 and other related standards regarding the provision for decommissioning of Oil and Gas installations and environmental rehabilitation expenditures, this research attempts to address the following research question.

Question 2. Are there any significant changes in the provision for decommissioning of Oil and Gas installations and environmental rehabilitation expenditures of Oil and Gas companies before and after the adoption and implementation of IFRS?

In order to adequately address the above research question while incorporating both listed Oil and Gas companies in Nigeria and listed Oil and Gas companies in other African countries, this research will investigate the following four null hypotheses (H_{05} - H_{08}).

H_{05}: There is no statistically significant difference between the mean values of the provision for decommissioning of Oil and Gas installations and environmental rehabilitation expenditures of Nigerian listed Oil and Gas companies before and after the adoption and implementation IFRS.

H_{06}: There is no statistically significant difference between the median values of the provision for decommissioning of Oil and Gas installations and environmental rehabilitation expenditures of Nigerian listed Oil and Gas companies before and after the adoption and implementation IFRS

H_{07}: There is no statistically significant difference between the mean values of the provision for decommissioning of Oil and Gas installations and environmental rehabilitation expenditures of African listed Oil and Gas companies before and after the adoption and implementation IFRS.

H_{08}: There is no statistically significant difference between the median values of the provision for decommissioning of Oil and Gas installations and environmental rehabilitation expenditures of African Oil and Gas companies before and after the adoption and implementation IFRS.

The paired samples t-test, Wilcoxon Signed Rank test and Gray's Conservatism Index analyses of the provision for decommissioning of Oil and Gas installation and environmental rehabilitation expenditures of listed Nigerian and listed African Oil and Gas companies reveals the following results.

Table 5.4a: Decommissioning Expenditures - Africa

Statistical Analysis of Decommissioning Expenditures and Gray's Conservatism Index (IC) – African Companies (Million USD)				
n = 35	**GAAP Decomm.**	**IFRS Decomm.**	**Differences**	**IC**
Mean	314	350	36.00	0.897
Median	268	243	-25.00	1.102
SD	34.4	53.04	19.00	0.642
t = -1.556, p = .129			*z = -1.392, p = .164*	

Table 5.4b: Decommissioning Expenditures - Nigeria

Statistical Analysis of Decommissioning Expenditures and Gray's Conservatism Index (IC) – Nigerian Companies (Million USD)				
n =12	**GAAP Decomm.**	**IFRS Decomm.**	**Differences**	**IC**
Mean	308	358	50.00	0.860
Median	255	236	-19.00	1.081
SD	240	291	51.00	0.825
t = -1.968, p = .075			*z = -1.688, p = .091*	

The results as seen in Tables 5.4a and 5.4b show that the transition from GAAP to IFRS did not significantly change the provision for decommissioning and environmental rehabilitation expenditures of listed Nigerian and African Oil and Gas companies. As can be seen from Table 5.4a the mean values of the provision for decommissioning of Oil and Gas installations of listed African Oil and Gas companies increased from 314 to 350, t= -1.556, p>.05 and the median values decreased from 268 to 243, z= -1.392, p>.05 while the mean values of the provision for decommissioning of Oil and Gas installation of listed Oil and Gas companies in Nigeria as shown in Table 5.4b increased from 308 to 358, t = -1.968, p>.05 and the median values decreased from 255 to 236, z = -1.688, p<.05.

These results are clear indication that decommissioning expenditures of Oil and Gas companies are not significantly affected by the transition from GAAP to IFRS. However, the Gray's (Gray, 1980) Conservatism Index analyses of both Nigerian and African firms of 1.081 and 1.102 respectively, show that Oil and Gas companies are more conservative under

the IFRS regime based on the median CI values, while the mean CI values of 0.860 and 0.897 for Nigerian and African firms respectively show that Oil and Gas companies are more conservative under GAAP compared to the IFRS regime. A comparison of the mean and median values of the provision for decommissioning expenditures of listed Nigerian and African companies show that listed Oil and Gas companies in Nigeria made lower provisions for decommissioning expenditures compared to listed Oil and Gas companies in other African countries. A possible explanation for this inconsistency in my opinion is that long term Joint Venture (JV) agreements account for about 90% of the daily crude Oil production in Nigeria (Ameh, 2006) whereas most of the African countries engage in short term Production Sharing Contracts (PSC) with the Oil and Gas companies (Hammerson, 2007). The longer the exploration and production project, the lower the amortised amount of annual provision for decommissioning of Oil and Gas installations and environmental rehabilitation expenditures. Another possible explanation for this is that most of the Oil and Gas companies operating in Nigeria apply the SE account method. Large Oil and Gas companies mostly favour the SE accounting method as a strategy to regulate their earnings (Baker, 1976; Al-Jabr & Spear, 2004) in order to minimise their tax obligation. Whereas the capitalisation of both successful and unsuccessful costs of E&E in the FC method helps smaller Oil and Gas companies to boost their assets in order to attract investors (Abushaiba & Eldanfour,, 2014).

Companies that use the SE accounting method immediately post to the income statement as expenses all expenditures on dry holes thus reducing the profit figure, whereas companies that use the FC accounting method capitalise all E&E expenditures regardless of its success thus they are likely to present a higher profit figure (Agbude, 2013). Moreover, technological advances as reported by KPMG (2011) may also reduce the ultimate cost of decommissioning of Oil and Gas installations. This implies that smaller Oil and Gas companies would prefer short term projects like the PSCs in order to make larger provisions

that would boost their assets, whereas large Oil and Gas companies would prefer long term projects like the JVs in order to make smaller provisions, minimise their assets and reduce their tax obligations to the Nigerian Government.

Contrary to my expectation as the researcher, results of the analysis suggest that there are no significant differences between IFRIC 1, IAS 37 and SAS 23 despite the fact that IFRIC 1 and IAS 37 recognize the present value (PV) of the future cost of decommissioning as a liability amortised over the life of the project. Whereas, SAS 23 requires Oil and Gas companies to make provision for decommissioning expenditures as the estimated future costs less the expected salvage value of the dismantled equipment amortised over the useful life of the equipment. This implies that the application of IAS 37 against SAS 23 did not significantly affect the amount of provision for decommissioning and environmental rehabilitation expenditures of Oil and Gas companies on transition from GAAP to IFRS. At present however, Nigerian offshore Oil and Gas fields are still in their productive stage (Adedayo, 2011), as such no offshore decommissioning of Oil and Gas installations has taken place.

By these results therefore, the null hypotheses (H_{05} - H_{08}) are hereby accepted and the alternative hypotheses (H_{a5} - H_{a8}) rejected, which implies that there is no sufficient evidence to suggest the existence of statistically significant differences between the mean and median GAAP and IFRS values of provision for decommissioning and environmental rehabilitation expenditures of listed Oil and Gas companies. To my knowledge, the impact of the adoption of IFRS on the provision for decommissioning of Oil and Gas installations and environmental rehabilitation expenditures have been scarcely investigated from the empirical point of view. However, KPMG (2011) reported that the implementation of IFRS may result in earlier recognition of decommissioning expenditures compared to the recognition under GAAP. Early recognition of decommissioning expenditures against future recognition may not

necessarily affect the financial statement and may not have any implication on Nigerian listed Oil and Gas companies.

5.6.3: Average Daily Crude Oil Production Cost per Barrel

It is one of the fundamental objectives of this research to investigate the impact of the adoption of IFRS on the Average Daily Crude Oil production cost per barrel of listed Oil and Gas companies in Nigeria and other African countries. This study therefore attempts to address the following research question;

Question 3. Does the adoption and implementation of IFRS have any significant impact on the Average Daily Crude Oil production cost per barrel of Oil and Gas companies?

In order to address the above formulated research question while incorporating the Nigerian and African listed Oil and Gas companies, this research investigates the following four null hypotheses (H_{09} - H_{012}).

H_{09}: There is no statistically significant difference between the mean values of the Average Daily Crude Oil production cost per barrel of Nigerian listed Oil and Gas companies before and after the adoption and implementation of IFRS.

H_{010}: There is no statistically significant difference between the median values of the Average Daily Crude Oil production cost per barrel of Nigerian listed Oil and Gas companies before and after the adoption and implementation of IFRS.

H_{011}: There is no statistically significant difference between the mean values of the Average Daily Crude Oil production cost per barrel of African listed Oil and Gas companies before and after the adoption and implementation of IFRS.

H_{012}: There is no statistically significant difference between the median values of the Average Daily Crude Oil production cost per barrel of African listed Oil and Gas companies before and after the adoption and implementation of IFRS.

The paired samples t-test, Wilcoxon Signed Rank test and Gray's Conservatism Index analyses of the Average Daily Crude Oil production cost per barrel of listed Nigerian and listed African Oil and Gas Companies revealed the following results.

Table 5.5a: Average Daily Crude Oil Production Cost/boe - Africa

Statistical Analysis of Average Daily Crude Oil Production (ADPC) Cost/barrel and Gray's Conservatism Index (IC) – African Companies (USD)				
n = 35	**GAAP ADPC**	**IFRS ADPC**	**Differences**	**IC**
Mean	34.82	43.95	9.13	0.7311
Median	32.39	44.39	12.00	0.6788
SD	23.19	22.73	-4.40	1.0202
t = -4.264, p = .000			*z = -3.894, p = .000*	

Table 5:5b: Average Daily Crude Oil Production Cost/boe - Nigeria

Statistical Analysis of Average Daily Crude Oil Production (ADPC) Cost/barrel and Gray's Conservatism Index (IC) – Nigerian Companies (USD)				
n = 12	**GAAP ADPC**	**IFRS ADPC**	**Differences**	**IC**
Mean	23.75	29.73	5.98	0.6807
Median	26.50	28.80	2.30	0.3457
SD	18.00	21.00	3.00	0.727
t = -2.115, p = .058			*z = -2.437, p = .015*	

As follows from the figures in Table 5:5a, it is apparent that there are statistically significant increases in the mean and median values of the ADPC per barrel of listed African listed Oil and Gas companies on transition from GAAP to IFRS. The mean values of the ADPC per barrel of listed Oil and Gas companies in Africa increased from $34.85 under GAAP to $43.95, $t = -4.264$, $p<.05$ under the IFRS with while the median values of the ADPC per barrel increased from $32.39 under GAAP to $44.39, $z = -3.894$, $p<.05$ after the transition to IFRS. The Gray's Conservatism Index of 0.7311 indicate that listed African Oil and Gas companies were more conservative under GAAP compared to their conservatism under the IFRS in terms of ADPC. The mean and median values of ADPC per barrel of listed Oil and Gas companies in Nigeria also increased significantly after the transition from GAAP

to IFRS. The mean values of ADPC of Crude Oil production per barrel increased from $23.75 under GAAP to $29.73, t = -2.115, p>.05 while the median values increased from $26.50 under GAAP to $28.78, z = -2.437, p <.05. The Gray's Conservatism Index of 0.6788 shows that Nigerian companies were more conservative under GAAP when compared to their conservatism under the IFRS. However, listed Nigerian Oil and Gas companies were more prudent in terms of the Crude Oil production costs compared to listed African Oil and Gas companies. This implies that the formulated null hypotheses (H_{09} - H_{012}) do not hold and are hereby rejected while the alternative hypotheses (H_{a9} - H_{a12}) accepted.

The most likely explanation for this significant change in Crude Oil production cost is that most of the Oil and Gas companies analysed are big Oil and Gas companies that favour the SE accounting method where all costs of unsuccessful exploration operation are expensed in the P&L as incurred. As indicated earlier, the adoption and implementation of IFRS has brought about more investments in the Oil and Gas sector in terms of acquisition of PEL, ML and increased drilling of exploratory and stratigraphic wells. Majority of these activities might not lead to the discovery of commercial quantities of Oil and Gas resources as such, most of the costs incurred would have to be expensed and amortised to the eventual costs of successful finds. Moreover, the recognition, measurement and classification criteria for expenditures incurred in the process of Oil and Gas exploration and production differ significantly between GAAP and IFRS. IFRS is fair value oriented standard while GAAP standards are historical cost based standards.

To date, there is apparently no existing research in literature that investigated the impact of IFRS adoption on the Average Daily Crude Oil production cost per barrel of listed Oil and Gas companies. It implies that this is the first empirical research to relate the adoption of IFRS and the average daily crude Oil production cost per barrel. A possible

explanation for this is that Nigeria is Africa's largest economy and the most prolific producer of Crude Oil in Africa South of the Sahara (EIA, 2013). The country only adopted the IFRS in January 2012. Therefore IFRS is still a new concept in Nigeria and the application of the new policy framework and its implications on accounting numbers of listed entities and industry specific performance measures like the ADPC of Crude Oil are yet to be fully investigated.

However, the findings of this investigation complements the EIA report of 2013 (EIA, 2013) which shows that the Average production cost per barrel of Crude Oil equivalent (boe) in the United States was $40, $17 in the Middle East, $50 in Canada, $25 in Venezuela, $40 in Angola, $50 in Russia, over $70 in Brazil and about $10 in Saudi Arabia (EIA, 2013; CNBC Report, 2015). These findings have significant implications for the understanding of how the transition from GAAP to IFRS influences the costs of Crude Oil per barrel in Nigeria and other African countries.

Prior to the adoption and implementation of IFRS (2009-2011), the average Daily Crude Oil production cost per barrel in Nigeria was $23.75 and the average Crude Oil price per barrel was about $82.00 (OPEC, 2015). After the adoption and implementation of IFRS (2012-2014), the average Daily Crude Oil production cost per barrel was $29.73 and the average Crude Oil price per barrel was $103.00 (OPEC, 2015). The gross revenue from a barrel of Crude Oil under GAAP was $58.25 and $73.27 after IFRS adoption. These findings therefore suggest that the Nigerian economy is better off under the IFRS regime compared to the GAAP regime. However, despite these promising results, further research is required to establish the relationship between these variables and the current trend of Crude Oil price variations taking into account the budgetary provision of $77.5 and $53 per barrel of Crude Oil in the Nigerian 2014 and 2015 budgets.

5.6.4: Key Performance Indicators

One of the primary objectives of this study is to investigate the impact of the adoption of IFRS on the financial statements of listed Oil and Gas companies. The study therefore sets out to assess the impact of the adoption of IFRS on the Key Performance Indicators of Oil and Gas companies. The following research question was formulated in order to contribute to the existing literature regarding the impact of the adoption and implementation of IFRS on the accounting numbers, financial ratios and other performance measures of Oil and Gas listed entities.

Question 4. Are there any significant changes in the Key Performance Indicators (KPIs) of listed Oil and Gas companies before and after the adoption and implementation of IFRS?

To enable this study to address the above formulated research question, this research investigates the following four null hypotheses (H_{013} - H_{016}) in order to test the statistical significance of the differences of the mean and median GAAP and IFRS values of KPIs of listed Oil and Gas companies in Nigeria and listed Oil and Gas companies in other African countries.

H_{013}: There is no statistically significant difference between the mean values of the accounting numbers and financial ratios of Nigerian listed Oil and Gas companies before and after the adoption and implementation of IFRS.

H_{014}: There is no statistically significant difference between the median values of the accounting numbers and financial ratios of Nigerian listed Oil and Gas companies before and after the adoption and implementation of IFRS.

H_{015}: There is no statistically significant difference between the mean values of the accounting numbers and financial ratios of African listed Oil and Gas companies before and after the adoption and implementation of IFRS.

H_{016}: There is no statistically significant difference between the median values of the accounting numbers and financial ratios of African listed Oil and Gas companies before and after the adoption and implementation of IFRS.

The statistical analyses of Total Assets, Inventories, Total Liabilities, Equity, Gross Profit Margin, Assets Turnover, Return on Assets, other performance measures of listed Oil and Gas companies in Nigeria and listed African Oil and Gas companies reveals the following results.

Total Assets:

Table 5.6a: Total Assets - Africa

Statistical Analysis of Total Assets and Gray's Conservatism Index (IC) - African Companies (Million USD)				
n=35	**GAAP Total Assets**	**IFRS Total Assets**	**Differences**	**IC**
Mean	2471.7	3034.9	563.2	0.8144
Median	1010.0	1191.0	181.0	0.8480
SD	509.0	600.8	91.8	0.8471
t = -2.526, p = .016			*z = -3.055, p = .002*	

Table 5.6b: Total Assets - Nigeria

Statistical Analysis of Total Assets and Gray's Conservatism Index (IC) - Nigerian Companies (Million USD)				
n=12	**GAAP Total Assets**	**IFRS Total Assets**	**Differences**	**IC**
Mean	4109.2	4964.2	855.0	0.7919
Median	487.3	578.4	91.1	0.8424
SD	821.95	1014.2	492.2	0.5147
t = -1.838, p = .093			*z = -2.353, p = .019*	

Strong evidence of statistically significant increase in the total assets of Oil and Gas companies was found after the application of IFRS in both Nigerian Oil and Gas companies and the African Oil and Gas companies as shown in Tables 5.6a and 5.6b above. From table 6.6b it can be seen that the mean values of total assets of listed Nigerian Oil and Gas companies increased from 4109.2 to 4964.2, t = -1.838, $p<.05$ with a mean Gray's Conservatism Index of 0.7919. Similar increases were noticed in the mean values of listed African Oil and Gas companies from 2471.7 to 3034.9, t = -2.526, $p<.05$ with a mean value of Gray's Conservatism Index of 0.8144 as shown in Table 6.6a. It is evident from these analyses that Oil and Gas companies were more conservative in the recognition and

measurement of their assets under the GAAP regime as compared to the IFRS regime as indicated by the Conservatism Index analyses. However, the results show that Nigerian Oil and Gas companies were more conservative in the recognition and measurement of their Oil and Gas assets compared to African companies.

The significant increase in assets size after IFRS adoption could be attributable to application of IAS 38: *Intangible assets* and IAS 16: *Property, plant and equipment* that require intangible assets and all items of property, plant and equipment (PPE) measured at fair value after their initial recognition as against historical cost measurement and recognition under GAAP (SAS 3*: Property, plant and equipment*). Moreover, SAS 3 requires that all items of PPE to be recorded at their cost less initial depreciation. Another possible reason for the increase could be that GAAP does not allow upward adjustment of PPE while under IFRS items of PPE could be upward adjusted to reflect their fair values. Moreover, when the technical feasibility and commercial viability of Oil and Gas production are established, E&E assets are no longer classified as deferred costs but tested for impairment under IAS 36: *Impairment of assets* reclassified and accounted for as items of PPE under *IAS 16* or *IAS 38*.

Entities are required to conduct impairment test if the recoverable amount of an asset is less than its carrying value. The difference between the carrying value of an asset and its recoverable value is the impairment loss which must be recognised as an expense as required by *IAS 36*. There is no equivalent standard in Nigeria that provides guidance on impairment testing. However, *SAS 9: Depreciation* is the closest standard and requires entities to depreciate their assets annually on a straight line basis. These differences in the provision for depreciation on straight line basis under GAAP and impairment testing under the IFRS could be argued to significantly affect the mean values of total asset of listed Nigerian and African Oil and Gas companies. Therefore, the differences in recognition, classification and

measurement of assets, revision of residual values, depreciation, impairment, useful lives and componentisation under GAAP and IFRS could be argued to significantly affect the mean values of total assets of Oil and Gas companies.

Previous studies have demonstrated strong correlation between IFRS adoption and increase in total assets. Consistent with these findings, Hung and Subramanyan (2004) reported a significant increase in the mean values of total assets of German listed firms after IFRS adoption. A similar result was reported by Kabir (2010), Georgakopoulou et al., (2010) and Pazarskis et al. (2011), Garcia-Jara et al. (2011) on New Zealand, Greek listed firms and firms listed on Madrid Stock Exchange respectively. More recently, Blanchette et al. (2013) reported a statistically significant increase in the total assets of Canadian listed entities after the adoption of IFRS.

Inventories:

The NG-GAAP standard (*SAS 4: On stocks)* and IFRS standard *(IAS 2*: *Inventories*) provide similar guidance in the treatment of inventories. Both standards require inventories to be carried at lower of costs and net realisable value and both standards allow the first-in-first-out (FIFO) or weighted average method but IFRS explicitly prohibits last-in-first-out (LIFO) in determining the cost of inventories (PwC, 2011). However, differences exist in the classification of some items of inventories under the two regimes.

Plant and machinery used in the refining and transportation of hydrocarbon products can be complex equipment and companies usually maintain a store of spare parts and servicing equipment for such critical components. Nigerian GAAP, SAS 17: *Accounting in the petroleum industry (Downstream activities)* provides that all items of spare parts, service equipment and standby equipment for use with specialized trucks and barges for the

transportation of petroleum products are capitalised as part of property, plant and equipment (PPE) and depreciated over the expected life of similar equipment in use (PwC, 2011). IAS 16: *Property, plant and equipment* however, requires that spare parts and servicing equipment apart from major spare parts and standby equipment are carried as inventory and recognised in the profit or loss as consumed. According to this standard, spare parts and standby equipment only qualify as items of property, plant and equipment (PPE) when an entity expects to use them for more than one period.

The adoption of IFRS requires Nigerian Oil and Gas firms to reclassify some of their spare parts, service equipment and standby equipment that were initially classified as PPE items under SAS 17 to items of inventory as required by IAS 16.

Table 5.7a: Inventories - Africa

Statistical Analysis of Inventories and Gray's Conservatism Index (IC) – African Companies (Million USD)				
n=35	**GAAP Inventories**	**IFRS Inventories**	**Differences**	**IC**
Mean	215.9	323.6	107.7	0.6672
Median	159.2	191.1	31.9	0.8333
SD	204.3	394.7	190.4	0.5176
t = -2.484, p = .018			*z = -3.359, p = .001*	

Table 5.7b: Inventories - Nigeria

Statistical Analysis of Inventories and Gray's Conservatism Index (IC) – Nigerian Companies (Million USD)				
n=12	**GAAP Inventories**	**IFRS Inventories**	**Differences**	**IC**
Mean	231.9	350.0	119.8	0.6577
Median	105.1	139.4	34.3	0.7539
SD	305.7	511.1	205.4	0.5981
t = -1.832, p = .094			*z = -2.353, p = .019*	

It is apparent from figures in Tables 5.7a and 5.7b that the transition from GAAP to IFRS by Oil and Gas companies has significantly increased their inventories level. The mean inventory values of listed Nigerian Oil and Gas companies significantly increased from 231.9 to 350.0 and that of African Oil and Gas companies increased 215.9 to 323.6. The Gray's

Conservatism Index of 0.6672 and 0.36577 for Nigerian and African firms respectively shows that Oil and Gas companies were more conservative in the recognition and measurement of their inventory values under GAAP regime compared to the IFRS regime. The z = -2.353, p < .05 and r = 48% for Nigerian firms and z = -3.359, p <.05 and r = 68% for the African firms indicate a statistically significant increase in inventories in both companies after the adoption of IFRS.

Findings in the present study are consistent with the findings of Hung and Subramanyam (2004) and more recently, Terzi et al. (2013) that reported an increase in the value of inventories of German and Turkish listed companies respectively as a result of the transition from GAAP to IFRS. Contrarily however, Lantto & Sahlstrðm (2009) observed a decrease of about 23% in the value of inventories of Finnish listed firms on transition from GAAP to IFRS. I would argue that Lantto & Sahlstrðm (2009) only analysed the transition reports of Finnish listed entities where the inventory values under Finnish Accounting Standards (FAS) were compared with the inventory values of under the IFRS. Therefore this result cannot be relied on to assess the impact of the adoption of IFRS on the inventory values.

As the researcher, I would further argue that this is an industry specific result and seem to be consistent with the notion that Oil and Gas companies traditionally stock large quantities of spare parts and service equipment in order to avoid shortage which may jeopardise their Crude Oil production exercise. Some of the inventory items were classified as items of PPE as required by SAS 17 under the NG-GAAP. On transition to IFRS, most of the items were reclassified to inventories as required by IAS 16, hence the significant difference in the values of inventories and PPE of Oil and Gas companies under GAAP and IFRS regimes.

A decrease in the value of PPE ultimately decreased the amount of depreciation which leads to an increase in the retained earnings of the firms by the corresponding amount of depreciation. An increase in retained earnings increased the firm's liquidity and profitability measures as indicated by the significant increase in CA and GPM.

Total Liabilities:

Previous studies have demonstrated that a compulsory switch from GAAP to IFRS in various jurisdictions and the application of IFRS in the preparation and presentation of financial statements has a significant impact on the total liabilities of listed companies. Stergios et al. (2005) reported significantly higher total liabilities of Greek firms under IAS than under Greek GAAP. A similar result was reported by Kabir et al. (2010) that value of total liabilities of New Zealand listed firms increased significantly as a result of transition from New Zealand GAAP to IFRS. Similarly, Callao et al. (2007); Gaston et al. (2007); Terzi (2013); Georgakopoulou et al. (2010) and Pazarskis et al. (2011) all reported that a transition from GAAP to IFRS has a statistically significant effect on total liabilities of listed companies.

Table 5.8a: Total Liabilities - Africa

Statistical Analysis of Total Liabilities and Gray's Conservatism Index (IC) - African Companies (Million USD)				
n=35	**GAAP Total Liabilities**	**IFRS Total Liabilities**	**Differences**	**IC**
Mean	504.3	731.2	226.7	0.6899
Median	331.2	407.6	76.4	0.8126
SD	112.10	105.31	-6.79	1.0644
t = -2.674, p = .011			*z = -3.326, p = .001*	

Table 5.8b: Total Liabilities - Nigeria

Statistical Analysis of Total Liabilities and Gray's Conservatism Index (IC) - Nigerian Companies (Million USD)				
n=12	**GAAP Total Liabilities**	**IFRS Total Liabilities**	**Differences**	**IC**
Mean	863.9	1225.4	361.5	0.7050
Median	413.2	457.1	43.9	0.9040
SD	105.48	158.28	52.80	0.6664
t = -2.096, p = .060			*z = -2.040, p = .041*	

Consistent with literature, the analyses of Nigerian and African listed Oil and Gas companies reveal a statistically significant increase in the total liabilities of these companies after the transition from GAAP to IFRS. As can be seen from Tables 5.8a and 5.8b the mean values of the total liabilities of Nigerian Oil and Gas companies increased from 863.9 to 1225.4, t = -2.096, p>.05 and the mean values of total liabilities of African companies increased from 504.3 to 731.2, t = -2.674, p<.05. The median values equally increased from 413.2 to 457.1 and 331.2 to 407.6. The z = -3.326, p <0.5 for African companies and z = -2.040, p <0.5 for Nigerian companies depicts statistically significant differences between the median values of total assets before and after IFRS adoption. The Gray's conservatism Index of 0.6899 and 0.7050 respectively shows that Oil and Gas companies were more conservative in the recognition of total liabilities under GAAP compared to IFRS regime. A comparison of the two results show that the African listed Oil and Gas companies were more conservative in the recognition, measurement and classification of total liabilities compared to the Nigerian listed Oil and Gas companies.

It is evident from these results that IFRS recognises more assets and liability items on the balance sheet and carries them at higher value than the NG-GAAP. The increase in liabilities indicates that the level of exposure in terms of account payables and long term loans has significantly increased after IFRS adoption which is an indication of expansion of

operation in terms of increased investment in the exploration and evaluation of hydrocarbon resources. It is also possible to hypothesise that Oil and Gas companies have engaged in more borrowings in order to finance the acquisition of technologically advanced Geological and Geophysical (G&G) and other survey equipment.

Equity:

Numerous studies have argued that the transition from GAAP to IFRS has a statistically significant impact on the book values of equity of listed companies. Results from Stergios et al. (2005), Georgakopoulou et al. (2010), Pazarskis et al. (2011) and Terzi et al. (2013) indicate that the transition from GAAP to IFRS significantly increased the book values of equity of listed companies in Greece and Turkey respectively. Tsalavoutas and Evans (2010) reported a positive impact on equity of Greek firms as a result of transition from Greek GAAP to IFRS.

Consistent with these results, figures in Tables 5.9a and 5.9b for African and Nigerian Oil and Gas companies show a statistically significant increase in the mean and median values of equity of these companies as a result of transition from GAAP to IFRS.

Table 5.9a: Equity - Africa

Statistical Analysis of Equity and Gray's Conservatism Index (IC) – African Companies (Million USD)				
n=35	**GAAP Equity**	**IFRS Equity**	**Differences**	**IC**
Mean	1634.4	2095.7	461.3	0.7797
Median	738.8	1127.4	488.6	0.5666
SD	369.87	421.28	51.41	0.8779
t = -3.502, p = .001			*z = -4.591, p = .000*	

Table 5.9b: Equity - Nigeria

Statistical Analysis of Equity and Gray's Conservatism Index (IC) – Nigerian Companies (Million USD)				
n=12	**GAAP Equity**	**IFRS Equity**	**Differences**	**IC**
Mean	3321.8	3923.7	601.9	0.8466
Median	917.2	1178.8	261.6	0.7781
SD	578.82	690.12	111.30	0.8387
t = -2.306, p = .042			*z = -3.032, p = .002*	

These results are however contrary to Lantto and Sahlstrom (2009) that reported a slight decrease in equity of Finnish listed firms on converting their GAAP based financial statements to IFRS based financial statements. The results from Lantto and Sahlstrom (2009) cannot be relied on as earlier argued because it was based on the transition report from FAS to IFRS. Dunne et al. (2008) reported that net equity under GAAP was higher than IFRS by as much as 153% in the UK, 106% in Ireland but slightly lower under GAAP in Italy (97%). The reduction in net equity under IFRS in the UK was mainly attributed to the implementation IAS 19: *Employee benefits.*

I would argue that the provision of SAS 8: *Employment retirement benefits* in Nigeria is comparable with the provision of IAS 19: *Employee benefit.* However, there are differences in the two standards in terms of classification and recognition of some of these benefits. SAS 8: E*mployment retirement benefit* encourages cash settled share based payment to employees upon retirement and the retirement benefit is treated as an expense while IAS 19: E*mployee benefits* encourages equity settled share based payment where these benefits are recognised as assets over the vesting period and credited to equity. These differences in classification could potentially be responsible for the significant increase in the book value of equity of Oil and Gas companies after IFRS adoption. Other standards responsible for the increase in equity include IFRS 3: *Business combination,* IAS 16: *Property, Plant and Equipment and* IAS 38: *Intangible assets.*

Gross Profit Margin:

Results from our analysis revealed a statistically significant increase in GPM of listed Oil and Gas companies after the adoption and implementation of IFRS. Contrarily however, Stergios et al., (2005) reported no significant difference between the GPM of Greek listed firms under GAAP and IFRS. Hung and Subramanyan (2004) observed an insignificant difference between the mean values of GPM reported under HGB (German GAAP) and IAS. They however reported a significant increase in the GPM under IAS at 10% confidence level. A similar result was reported by Dimitrios et al. (2013) that a transition from Greek GAAP to IFRS did not significantly change the GPM of the firms. A study conducted by Dunne et al. (2008) on some listed firms in the UK, Italy and Ireland reported that gross profit under GAAP was only 66%, 85% and 89% of the gross profit under IFRS in the UK, Italy and Ireland respectively.

Figures from Tables 5.10a and 5.10b show that the adoption of IFRS significantly increased the mean values of GPM of Nigerian and African listed Oil and Gas companies from 13.68 to 15.30% and 8.58 to 12.94%.

Table 5.10a: Gross Profit Margin - Africa

Statistical Analysis of Gross Profit Margin (GPM) and Gray's Conservatism Index (IC) – African Companies (%)				
n=35	**GAAP GPM**	**IFRS GPM**	**Differences**	**IC**
Mean	8.58	12.94	4.36	0.6631
Median	8.28	13.38	5.10	0.6188
SD	5.61	9.54	3.94	0.5870
t = -4.315, p = .000			*z = -3.847, p = .000*	

Table 5.10b: Gross Profit Margin - Nigeria

Statistical Analysis of Gross Profit Margin (GPM) and Gray's Conservatism Index (IC) – Nigerian Companies (%)				
n=12	**GAAP GPM**	**IFRS GPM**	**Differences**	**IC**
Mean	13.68	15.30	1.62	0.8941
Median	10.26	12.82	2.56	0.8008
SD	10.77	10.53	-0.24	1.0230
t = -2.505 , p = .029			*z = -2.197, p = .028*	

I would argue that the significant increase in GPM is industry specific and could be attributed to the influence of *IAS 2*: *Inventories* and *IAS 16: Property, plant and equipment*. These standards require the reclassification of some items of PPE (spare parts and service equipment that are expected to be used within one period) to inventories in the profit and loss accounts as against the provision of *SAS 4: On stocks* which requires spare parts and service equipment for heavy duty Oil and Gas transportation and storage equipment be classified as items of PPE.

The reclassification of these items from PPE to inventories will significantly reduce the values of the PPE, decrease the amount of accumulated depreciation and increase the amount retained earnings. An increase in the amount of retained earnings by the corresponding amount of depreciation could potentially be responsible for the statistically significant increase in the GPM of the Oil and Gas firms. The application of IFRS 3: *Business Combination* could also be argued to influence the increase in GPM of the companies analysed.

Asset Turnover:

A number of researchers have reported that the adoption and implementation of IFRS does not have any effect on ATO of listed companies. Studies by Hung & Subramanyan (2004) reported a significantly lower ATO of German firms under IFRS when compared to the ATO under the German GAAP (HGB). Dimitrious et al., (2013) reported a decrease in the ATO of Greek listed firms by about 3%, while Pazarkis et al. (2011) reported that the application of IFRS by Greek listed firms did not affect their ATO. However, Agca & Aktas (2007) reported a slight increase in the ATO of Turkish listed firms on converting their GAAP financial statements to IFRS based financial statements.

Table 5.11a: Assets Turnover - Africa

Statistical Analysis of Assets Turnover Ratio (ATO) and Gray's Conservatism Index (IC) – African Companies (X)				
n=35	**GAAP ATO**	**IFRS ATO**	**Differences**	**IC**
Mean	4.01	4.61	0.60	0.8698
Median	1.91	2.55	0.64	0.7490
SD	8.82	8.62	-.190	1.0220
t = -1.537, p = .133			*z = -1.261, p = .207*	

Table 5.11b: Assets Turnover - Nigeria

Statistical Analysis of Asset Turnover Ratio (ATO) and Gray's Conservatism Index (IC) – Nigerian Companies (X)				
n=12	**GAAP ATO**	**IFRS ATO**	**Differences**	**IC**
Mean	4.16	3.74	-0.42	1.058
Median	1.52	1.47	-0.05	1.034
SD	5.81	5.84	0.03	0.943
t = 0.649, p = .530			*z = -0.039, p = .969*	

Consistent with some of these results, our findings as shown in tables 5.11a and 5.11b reveal that the mean values of the ATO of Nigerian listed Oil and Gas companies was negatively affected by the transition from GAAP to IFRS by about 10% while the ATO of African listed companies increased by about 15% after the adoption of IFRS. However this increase in the ATO is not statistically significant as evidenced by the t = -1.537, p>.05 and z = -1.261, p>.05. The decrease in the ATO of Nigerian companies is also not statistically significant as indicated by t = 0.649, p >.05 and z = -0.039, p >.05. It however reaffirms the conservatism of Nigerian Oil and Gas companies in terms of disposal and acquisition of new assets as evidenced by the Gray's Conservatism Index of 1.058. For the African Oil and Gas companies a CI of 0.8694 indicates that the companies where more conservative under GAAP compared to IFRS.

When the two results were compared however, the Conservatism Index of listed Oil and Gas companies in Africa was lower than the Conservatism Index of the Nigerian Oil and

Gas companies. This shows that the Oil and Gas companies in Africa were more prudent in the recognition, measurement and classification of their assets valuation compared to the listed Oil and Gas companies in Nigeria. Generally, this study can conclude that the adoption and implementation of IFRS has no statistically significant impact on the ATO of listed Nigerian and African Oil and Gas companies.

Return on Assets:

Previous research has demonstrated that the transition from GAAP to IFRS significantly affects the ROA of listed companies. Studies from Iatridis, (2011) reported that adoption of IFRS has significantly increased the ROA of Greek listed firms and argued that the fair value orientation of IFRS was responsible for the increase. Similar results were reported by Terzi (2013), Blanchette et al. (2013) on Turkish and Canadian listed companies respectively, after the transition from GAAP to IFRS. Contrarily however, Hung & Subramanyam (2004) reported a significant decrease in ROA of German firms on transition from HGB to IFRS. I would argue that Hung and Subramanyam (2004) based their results on the financial statement of German listed companies for the period 1998 - 2002. This period is long before the compulsory adoption of IFRS in the EU. With the compulsory adoption of IFRS in the EU and the review of most of the IAS, their results could not be reliable to conclude that IFRS adoption has a negative effect on ROA of listed companies.

Table 5.12a: Return on Assets - Africa

Statistical Analysis of Return on Assets (ROA) and Gray's Conservatism Index (IC) – African Companies (%)				
n=35	**GAAP ROA**	**IFRS ROA**	**Differences**	**IC**
Mean	5.90	8.20	2.30	0.7195
Median	5.31	5.98	0.67	0.8879
SD	6.11	5.87	-0.24	0.9591
t = -4.218, p = .000			*z = -3.654, p = .000*	

Table 5.12b: Return on Assets - Nigeria

Statistical Analysis of Return on Assets (ROA) and Gray's Conservatism Index (IC) – Nigerian Companies (%)				
n=12	**GAAP ROA**	**IFRS ROA**	**Differences**	**IC**
Mean	6.26	8.17	1.91	0.76622
Median	3.94	6.00	2.06	0.6567
SD	6.70	5.61	-1.09	1.1940
t = -3.807, p = .000			*z = -2.707, p = .007*	

Results of our analyses as seen in Tables 5.12a and 5.12b indicate that the adoption of IFRS has significantly increased the ROA of both Nigerian and African listed Oil and Gas companies. The mean values of ROA of the Nigerian Oil and Gas companies increased from 6.26 to 8.17 % while the median values increased from 3.94 to 6.00 after IFRS adoption. The mean values of ROA of the African companies increased from 5.9 to 8.2 while the median values increased from 5.31 to 5.98 %. Both Nigerian and African companies were more conservative under GAAP compared to IFRS as illustrated by IC = 0.7195 in Africa and IC = 0.76622 but the Nigerian Oil and Gas companies were more prudent in terms of their assets valuation compared to the listed African Oil and Gas companies.

Findings from the above analysis suggest that there are statistically significant differences between the KPIs of Nigerian and African listed Oil and Gas companies computed under GAAP and the KPIs of Nigerian and African listed Oil and Gas companies computed under the IFRS regime. The null hypotheses in respect of these variables are therefore rejected. However, these results need to be interpreted with caution because not all the accounting numbers and performance measures of the Oil and Gas companies were significantly affected by the transition from GAAP to IFRS as discussed above. Therefore the findings cannot be extrapolated to all the variables investigated. Taken together however, these results suggest that there is an association between the transition from GAAP to IFRS

and the change in accounting numbers and performance measures of Nigerian and African listed Oil and Gas companies.

5.6.5: Other Accounting Numbers and Financial Ratios

Further statistical analyses of accounting numbers and financial ratios of Oil and Gas companies in Nigeria and Africa reveal significant differences between the Return on Invested Capital (ROIC) of Oil and Gas companies before and after the adoption of IFRS. The mean values of ROIC increased from 4.96% to 8.07% for the Nigerian companies and 7.62% to 10.96% for the African companies. These results indicate that African Oil and Gas companies were more profitable compared to Nigerian companies after the adoption of IFRS. Consistent with these results, Lantto and Sahlstrom, (2009), Punda, (2011) reported significant increases in the ROIC of Finnish listed firms and UK listed firms respectively after the adoption of IFRS by listed companies in Finland and UK.

Similar increases were observed on the mean and median current assets (CA) values and current ratio (CR) as illustrated in appendices 5.4, 5.5 and 5.10, 5.11 for the listed Nigerian and African Oil and Gas companies respectively. The significant increase in CA is an industry specific increase which is a clear reflection of the reclassification[20] of some Oil and Gas exploration, transportation and storage spare parts and service equipment from items of PPE under the guidance of NG-GAAP *SAS 17: Accounting in the petroleum industry (Downstream activities)* and *SAS 4: On stock* to items of inventories as required by *IAS 6: property, plant and equipment* and *IAS 2: Inventories.* Consistent with this result, Punda (2011) reported a 4.2% increase in CR while Lantto and Sahlstrom (2009) reported no significant change in the value of CR of Finnish listed companies after converting the GAAP

[20] *IAS 16: property, plant and equipment provides that spare parts, service and standby equipment only qualify as items of property, plant and equipment (PPE) or non-current assets when an entity expects to use them for more than one period.*

based financial statements to IFRS based financial statements. Agca and Aktas (2007) and Callao et al. (2007) reported a slight increase in the CR of Turkish and Spanish listed firms respectively after IFRS adoption.

Majority of the results of these analyses are in line with those of previous studies as discussed above and imply that there is a strong correlation between the adoption and implementation of IFRS and a change in the accounting numbers and performance measures of Oil and Gas companies. By this implication therefore, the developed hypotheses (H_{013} - H_{016}) are hereby rejected and the alternative hypotheses (H_{a13} - H_{a16}) accepted that there are statistically significant differences between the GAAP and IFRS values of accounting numbers and performance measures of Oil and Gas Companies.

5.7: CONCLUSION

Results from the analyses in this chapter confirms majority of the previous findings in literature and contributes to our understanding of the implication of the adoption of International Financial Reporting Standards (IFRS) on the financial statements of listed Oil and Gas companies in Nigeria and the African continent. The accounting numbers and financial ratios computed from the financial statements of 12 listed extractive sector companies in Nigeria and 35 listed extractive sector companies from 7 other African countries were analysed in order to investigate the impact and implication of the adoption and implementation of IFRS on their accounting numbers and financial ratios.

A Kolmogorov-Smirnov and Shapiro-Wilk tests for normality were conducted to determine the normality of the collected data. It was established that the collected data was not of the Gaussian distribution because of high Skewness and Kurtotic values. A Wilcoxon

Signed Rank and Paired sample t-tests were however, concomitantly conducted for comparative purpose and for the robustness of this study.

Results of the secondary data statistical analyses reveal a significant increase in the mean values of E&E expenditures of Oil and Gas companies in Nigeria after the adoption of IFRS. The mean and median values of E&E for both the Nigerian and African listed Oil and Gas companies increased significantly after the transition from GAAP to IFRS. The result also indicates a significant increase in the mean cost/barrel of Crude Oil production of Nigerian and African listed Oil and Gas companies after the adoption and implementation of IFRS. However, the result of the analysis reveal that the provision for decommissioning of Oil and Gas installations and environmental rehabilitation expenditures of Oil and Gas companies in Nigeria did not change significantly. The NG-GAAP values of inventories, GPM, ROA, Equity and TA were also significantly different from the IFRS values. Consistent with some previous studies, the mean and median GAAP and IFRS values of ATO and GP were not significantly affected by the transition from GAAP to IFRS. Gray's Conservatism Index (Gray, 1980) also shows that Oil and Gas companies were more conservative in terms of recognition, measurement and classification of their income, expenditures, assets and liabilities under GAAP compared to the IFRS regime.

The results also reveal statistically significant differences between other accounting numbers and financial measures before and after IFRS adoption. The inventory level of both Nigeria and Africa listed Oil and Gas companies increased significantly as a result of the reclassification of items of PPE to inventories in line with the provision of *IAS 16*. Consistent with literature, the mean current and total assets increased significantly in both Nigerian and African companies as a result of transition from GAAP to IFRS. The E&E expenditures of Oil and Gas firms increased significantly after IFRS adoption presumably because Oil and

Gas firms favour the SE accounting method to the FC accounting method to account for their E&E expenditures. However, result of the analysis shows that the adoption of IFRS did not significantly affect the provision for decommissioning expenditures of Oil and Gas companies. This shows that the guidance of *IFRIC 1*, *IAS 37* and NG-GAAP standard *SAS 23* in respect of decommissioning expenditures are similar. The average cost of producing a barrel of Crude Oil equivalent (ADPC) however increased significantly as a result of transition from GAAP to IFRS by Nigerian and African listed Oil and Gas companies. Taken together, these results indicate that there is a direct correlation between a shift in accounting policy and the values of accounting numbers and performance measures of listed Oil and Gas companies.

However, of all the accounting standards reviewed, the following standards did not show any significant impact on the income statement and balance items of Oil and Gas firms as a result of transition from GAAP to IFRS: IAS 7: *Cash flow statement,* IAS 8: *Accounting policies, changes in accounting estimates and errors,* IAS 11: *Construction contracts,* IAS 14: *Segment reporting*, IAS 20: *Accounting for government grants and disclosure of government assistance*, IAS 24: *Related party disclosure*, IAS 29: *Financial reporting in hyperinflationary economies,* IAS 30: *Disclosure in the financial statements of banks and other financial institutions,* IAS 33: *Earnings per share* and IAS 34*: Interim financial reporting.*

In conclusion, it is evident this study has demonstrated that most of the GAAP accounting numbers, financial ratios and industry specific performance measures of the examined extractive sector companies were significantly different from the IFRS accounting numbers and performance measures in consistent with literature. This study can therefore realistically conclude and reject the null hypotheses ($H_{01} – H_{04}$), ($H_{09} – H_{012}$), ($H_{013} – H_{016}$)

and accept the alternative hypotheses (H_{a1} – H_{a4}), (H_{a9} – H_{a12}), (H_{a13} – H_{a16}) that the adoption and implementation of IFRS has statistically significant impact on the accounting numbers and performance measures of Nigerian and African listed extractive sector companies. However, hypotheses (H_{05} – H_{08}) are surprisingly accepted and the alternative hypotheses (H_{a5} – H_{a8}) rejected**.** This suggests that there are no statistically significant differences between the mean and median values of the provision for decommissioning of Oil and Gas installation and environmental rehabilitation expenditures of Oil and Gas companies under GAAP and the mean and median values of the provisions after the adoption and implementation of IFRS.

Chapter six moves on to provide the statistical analyses of the primary data collected from the administered questionnaires to the CEOs of Oil and Gas companies, finance directors and accountants, auditors of Oil and Gas company financial statements, financial analysts, accounting regulatory bodies and other stakeholders in the adoption and implementation of IFRS in Nigerian. The results of the questionnaire analysis will be used to address research questions 5 & 6.

CHAPTER SIX

PRIMARY DATA PRESENTATION AND STATISTICAL ANALYSES

CHAPTER SIX: PRIMARY DATA PRESENTATION AND STATISTICAL ANALYSES

6.1: INTRODUCTION:

In the preceding chapter, the secondary data statistical analysis was conducted and the results presented and discussed. The results reveal that most of the accounting numbers, financial ratios and industry specific performance measures investigated significantly changed after the transition from GAAP to IFRS.

This chapter presents the results of the statistical analysis of the primary data collected from the questionnaires administered to the key stakeholders in the adoption and implementation of IFRS in Nigeria. The objective of administering the questionnaires is to sample the thoughts and views of accounting practitioners, regulators, Oil and Gas personnel, auditors, analysts and other stakeholders in the adoption and implementation of IFRS on the impact of the policy on the financial statements of listed Oil and Gas companies. Results of this analysis will be used to triangulate the findings from the statistical analyses of the secondary data presented in the previous chapter.

The remaining parts of the present chapter are organised as follows; Section 6.2 provides an overview of primary research while section 6.3 discusses the questionnaire as the instruments of data collection. Section 6.4 discusses the different sampling methods while section 6.5 presents the questionnaire analyses. This section is subdivided into five subsections. 6.5.1 Presents the views of the CEOs and other stakeholders in the Oil and Gas sector in respect of the impact of the adoption and implementation of IFRS on the exploration and evaluation expenditures of Oil and Gas companies, 6.5.2 discusses the various responses

on the impact on the decommissioning and environmental rehabilitation expenditures while 6.5.3 discusses the views on the impact of the adoption on accounting numbers and other performance measures of Oil and Gas companies. 6.5.4 However, discusses the views of the various stakeholders on the impact of IFRS adoption on the contractual relationships between Oil and Gas companies and the host governments in respect of JVs and PSCs as it relates to taxes, royalties, bonuses and profit oil split. 6.5.5 Presents the views of the stakeholders on the impact of IFRS adoption on the ease of preparation and presentation of IFRS financial statements to the management, ease of auditing IFRS financial statements and general quality and comparability of IFRS financial statements among competitors across the Oil and Gas sector. Section 6.6 is the concluding part of this chapter and provides a summary of the findings.

6.2: PRIMARY DATA COLLECTION

Primary research also referred to as field research (Brassington and Pettit, 2007) involves the collection and analysis of original data that does not already exist from primary sources. It is a type of research that produces data that are only obtainable directly from an original source. The primary data are the directly obtained by the researcher for a particular researcher project. The decision of the researcher to collect primary data is informed by the nature, scope and objectives of the research. Primary research is subdivided into quantitative and qualitative research (Tiffin, 2004). The qualitative primary research includes; interviews, ethnographies, participant observations and focus group while the quantitative primary research includes; questionnaires, field work, surveys and controlled laboratory experiments (Tiffin, 2004). The next section will discuss the nature and characteristics of the data collection instruments.

6.3: INSTRUMENT OF DATA COLLECTION:

Based on the unique characteristics of the Oil and Gas, the robust research questions and the objectives of this research as discussed in the previous chapters, questionnaires have been identified as the most appropriate instrument for the collection of primary data for this study. Questionnaires are relatively easy to construct and administers and their use have been very popular with social science researchers for many decades (Sivo et al., 2006). They are used in social science research to efficiently gather a significant amount of data at a very low cost (Sivo et al., 2006). Technology has made it easier to administer e-mail and web based questionnaires that can reach a large number of target respondents within a very short time. The conduciveness of this type of research method makes it possible for the respondents to provide private and sensitive answers at the comfort of their homes or offices. The nature of the questionnaire, the numbers administered and the various categories of target respondents are discussed below.

6.3.1: The Questionnaire

The questionnaires appropriate for this research are the semi-structured questionnaires designed to extract specific information from the respondents. These types of questionnaires consist of open and closed-ended questions and are known for their flexibility where the respondents are free to express additional views, thoughts and reservations regarding certain areas that need further details aside the specific questions. The responses from these questionnaires will provide a platform to fully address the formulated research questions. The questionnaires for this research were designed taking into consideration the various stakeholders in the adoption and implementation of IFRS in Nigeria and the diversified, intricate and sensitive nature of Oil and Gas sector information. The semi-structured

approach was chosen in order to accommodate the views of the various stakeholders in the adoption and implementation of IFRS in Nigeria and to provide the respondents with further options to express their views and reservations regarding the adoption and implementation of IFRS in Nigeria.

Based on these considerations, there categories of questionnaires were constructed. Category one was designed to target the CEOs of Oil and Gas companies, category two was designed for the internal and external auditors of Oil and Gas companies while category three was designed to accommodate the views of finance directors and accountants, preparers of Oil and Gas company financial statements, staff of accounting regulatory bodies, financial analysts, professional accountants and other stakeholders in the adoption and implementation of IFRS in Nigeria. The questions raised in the various categories of questionnaires varied depending on the target respondent, although there are some commonalities.

6.3.2: Characteristics of Questionnaires:

Despite the popularity of questionnaires in social science research, this method of primary data collection as argued by Dunsmuir and Williams (1992) has been associated with error and other shortcomings that pose great concern to social science research which may compromise the validity and reliability of the instrument as shown in Table 6.1 below.

Table 6.1: Advantages and Disadvantages of Questionnaires

Advantages	Disadvantages
Quick and cheap to administer if sample is small	Using large sample can be time consuming
Computer codable for quick analysis and repetition	Overreliance on statistical analysis loses individual meanings
Coding enables multiple comparisons among variables	Closed question may constrain the data
Verifiable by replication and re-questioning of respondents	Respondents may interpret the questions differently, making comparison of answers difficult
Easy to understand by different categories of respondents	It is not possible to check if people are responding honestly
Can be designed to target specific respondents, provides flexibility	Response rate may be low, and selection non-random

Dunsmuir and Williams (1992)

Apart from the disadvantages of the use of questionnaires in the collection of primary data as listed in Table 6.1 above, questionnaires are also associated with measurement error which may arise from the questionnaire design. Coverage error has also been identified in terms of the researcher's inability to contact some of the respondents in the population. Nonresponse error is identified as the most notorious problem for mail and internet-based surveys (Kish, 1965). This may arise as a result of failure of the recipient to respond (Kish, 1965; Cochran, 1963) which may impact on the validity of the inferences. It has also been observed that highly educated professionals are less likely to respond to mail based questionnaires (Dunsmuir and Williams, 1992) for fear of scammers and other forms of internet fraud.

However, despite these shortcomings, questionnaires have been very popular in social science research because of their flexibility (Dunsmuir and Williams, 1992). Questionnaires are more objective and are used to gather responses in a more standardised

way. It is also relatively quick to gather information using questionnaires compared other survey methods (Kish, 1965).

6.3.3: Factors Considered in Questionnaire Design:

The following factors were considered in the design of questionnaires for this research.

Questions without bias: All the questions in the various categories of questionnaires were worded without bias and in such a way that would not lead the respondent to the required answers.

Simple Questions: The questions were intentionally made very simple and short for understandability and ease of response taking into account the busy nature of the respondents

Specific Questions: Questions were worded with specific reference to time periods and dates so as not to confuse or misguide the respondents.

No Jargons and Shorthand: The questions were designed in straightforward English without acronyms, trade jargons and initials. Where necessary, these abbreviations were clearly defined and explained for ease of understandability.

Open-ended Questions: The questionnaires were designed to provide extra flexibility for the various categories of respondents to express their thoughts regarding the phenomenon being investigated. The researcher took into consideration that IFRS is a new concept and the respondents may wish to further express their support or reservations regarding the adoption and implementation of the policy.

6.3.4: The Questionnaire Grid:

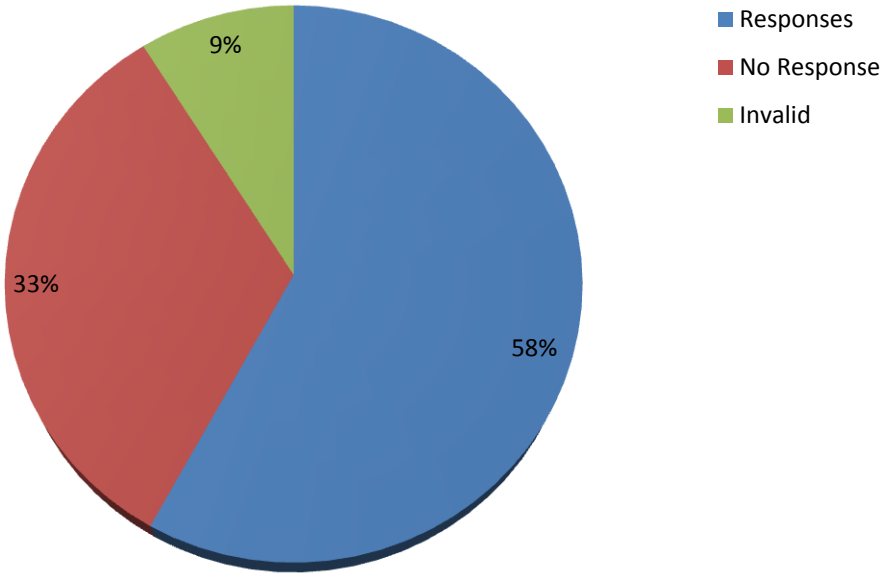
About 100 semi-structured questionnaires were administered to the different categories of target respondents. A total of 58 subjects completed and returned the questionnaires out of the study population as shown in table 6.2 below.

Table 6.2: Questionnaire Administration and Responses:

RESPONDENTS	NUMBER ADMINISTERED	RESPONSES	NO RESPONSE	INVALID
Chief Executive Officers (CEOs)	6	3	3	0
Finance Directors/Accountants	24	15	7	2
Internal/External Auditors	32	18	11	3
Accounting Regulatory Bodies	12	9	2	1
Professional Accountants	18	10	6	2
Financial Analysts	8	3	4	1
TOTAL	**100**	**58%**	**33%**	**9%**

Six questionnaires were administered to the CEOs of Oil and Gas firms, 24 to the finance directors/accountants/preparers of Oil and Gas company financial statements, 32 to internal and external auditors of Oil and Gas firms, 12 to staff of accounting regulatory bodies in Nigeria, 18 to professional accounting bodies and 8 to financial analysts. Out of the total questionnaires administered, 33% were not responded while 9% were categorised invalid because of abnormal, irregular and incomplete responses, living a total response of 58% which were eventually analysed as shown in figure 6.1 below.

Figure 6.1: Questionnaire Response Chart



A review of academic literature on the adequacy of response rate in social science research reveals that the average response rate for social science studies that utilise data collected from individuals was 52.7% with a standard deviation of 20.4% while the average response rate for studies that utilised data collected from corporate bodies was 35.7% with a standard deviation of 18.8% (Baruch and Holtom, 2008). However, Cycyota and Harrison 2006; Anseel et al. (2010), reported that the average response rate of surveys to top executives was 35% and the average response rate for individuals was 52.3%. The response rate of 58% obtained from this survey was therefore highly adequate for the analysis based on the literature. This response rate was achieved as a result of early preparation and intimating the participants about the survey in earnest. Moreover, most of the participants were highly interested in the research topic being a new accounting policy that has just been applied in the preparation and presentation of financial statements in Nigeria. Most of the participants revealed their enthusiasm and readiness to partake in this survey. They regarded their participation as an opportunity to share their views and reservations regarding the

effectiveness or otherwise of IFRS adoption in Nigeria. The research was therefore very timely as indicated by some of the respondents.

In the next section, the various types of sampling methods are highlighted and the appropriate sampling strategies employed in the selection of participants for this research are discussed in details.

6.4: SAMPLING METHODS:

It is not possible to administer questionnaires to all the stakeholders in the adoption and implementation of IFRS in the Oil and Gas sector in Nigeria. Based on this therefore a sampling devise was applied where individuals were selected to participate in the survey based on consideration of certain characteristics. There are three most common sampling techniques in qualitative research as described by Bernard (1995). The purposive sampling, quota sampling and snowball sampling method.

6.4.1: Quota Sampling:

This type of sampling method is often used in qualitative research. Characteristics of participants like age, place of birth, gender, place of residence, marital status etc. are employed in selecting the participants for the research. This study places no emphasis on gender and other characteristics of the participants listed above and therefore not appropriate to our research.

6.4.2: Snowball Sampling:

This is also known as the chain referral sampling. It is another type of purposive sampling where participants are selected based on the referral of the researcher in social networks. It is used to recruit hidden population of participants that are not easily accessible to the researcher through other sampling strategies. Most of the participants in this research

were introduced to the researcher and recruited through social media like LinkedIn, Twitter and Facebook.

6.4.3: Purposive Sampling Method:

This is the most common type of sampling strategy in qualitative research. In this type of sampling method, the researcher takes into consideration the characteristics of the participants and their relevance to a particular research question. In this research selection of participants is strictly on their qualification and experience. Participants are only selected if they are qualified accountants or auditors, work in the Oil and Gas sector and have knowledge of the IFRS. The purposive sampling and the Snowball sampling were the main sampling strategies employed in the recruitment of participants for this research.

In the next section, the necessary precaution in mitigating any incidence of ethical breach in respect of data collection from the perspectives of the respondents and the University policy thereof will be highlighted and discussed.

6.4.4: Ethical Consideration:

Due and necessary ethical considerations were taken in the design and construction of the questionnaires before being administered to the intended participants. In the questionnaire administration process, all the necessary ethical consideration in safeguarding the anonymity of participants, consent of the participants and confidentiality of sensitive information were recognised and respected. No names of individuals, groups or corporate bodies that participated in this research were revealed under any circumstances despite some of the respondents being indifferent to their identity being disclosed and their responses published. All respondents were addressed as CASE “A”; CASE “B” etc. as appropriate in the course of

this research. In the next section, the questionnaire analysis results will presented and discussed.

In the consideration of ethical concern in this research, the four ethical principles as outlined by Beauchamp and Jim Childress (1983) regarding *autonomy and respect* of the right of the participants, the *beneficience* regarding the handling and kind treatment of the respondents, the *non-maleficience* (not harming) the respondents and *application of justice and/equity* in the treatment of the respondents have been duly considered and adhered to strictly.

6.4.5: Test of Validity and Reliability:

A reliability test of the study instrument was conducted using the SPSS. Result of the analysis revealed a reliability coefficient (Cronbach's Alpha) of 0.719 (71.9%) as shown in table 6.3 below. Literature has shown that the standardized alpha reliability coefficient of 0.70 or higher is considered “acceptable" in most social science research situations for the survey to have strong internal validity (Nunally, 1978; Cohen et al., 1988). The Cronbach's Alpha of 0.719 is therefore sufficient to enable the researcher to conduct a valid and reliable survey.

Table 6.3: Reliability Statistics of Survey Instrument

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.719	.715	28

6.5: QUESTIONNAIRE ANALYSIS AND RESULTS:

The data collected from administering of questionnaires were analysed using the Statistical Package for Social Science (SPSS). This section is subdivided into three parts. Part one presents the views of the CEOs, preparers and auditors of Oil and Gas company financial

statements on the impact of the adoption and implementation of IFRS on the exploration and evaluation expenditures of Oil and Gas companies, the impact on decommissioning expenditures and the impact on other accounting numbers and performance measures of the Oil and Gas companies.

The second part deals with the ease of preparation and presentation of IFRS financial statements, ease of auditing of IFRS financial statements, quality of IFRS financial statements and ease of comparison of IFRS financial statements among competitors across the Oil and Gas sector.

The third part however deals with the views of the respondents in respect of the impact of the adoption of IFRS on the contractual relationships between Oil and Gas companies and Nigerian Government in terms of taxes, royalties, bonuses and Profit Oil Split. The impact of the adoption of IFRS on the average daily production cost of Crude Oil per barrel is purely quantitative and has been addressed in the previous chapter. Therefore research question three will not be discussed in this chapter.

The participants to this survey cut across all the segments of Oil and Gas sector, the accounting and auditing sector and the independent professional accountants and financial analysts. Table 6.4 below presents a breakdown of the sectors of the various respondents to the survey.

Table 6.4: Sector of Respondent

Preparers of Financial Statement s		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Oil and Gas Upstream	10	27.0	27.0	27.0
	Oil and Gas Downstream	5	13.5	13.5	40.5
	Accounting Regulatory Body	9	24.3	24.3	64.9
	Professional Accountant	10	27.0	27.0	91.9
	Financial Analyst	3	8.1	8.1	100.0
	Total	37	100.0	100.0	

6.5.1: Exploration and Evaluation Expenditures

IFRS 6: *Exploration for and Evaluation of Mineral Resources* was issued by the IASB to provide interim guidance to extractive sector entities on how to account for their exploration and evaluation expenditures pending the outcome of a wider extractive industries project (PwC, 2011). In Nigeria, SAS 14: *Accounting in the Oil and Gas Sector (Upstream Activities)* and *SAS 17*: *Accounting in the Oil and Gas Sector* (Downstream Activities) are the equivalent standards that provide similar guidance to IFRS 6.

However, IFRS 6 is limited in scope and does not cover the development and production stages of Oil and Gas exploration. Therefore, Oil and Gas entities are permitted by the IASB to continue applying the guidance of their existing standards to account for expenditures incurred in the development and production phases of Oil and Gas production (PwC, 2011). Moreover, IFRS 6 requires the reclassification of E&E assets to development assets once commercially producible hydrocarbon resources have been identified while unsuccessful E&E assets are written down to fair value less costs to sell. The E&E assets are tested for impairment prior to being reclassified to development assets and any impairment loss is expensed in the P&L. The accounting treatment of E&E expenditures (capitalising or

expensing) can have a significant impact on the financial statements and reported financial results (PwC, 2011).

In order to examine the impact of IFRS adoption on the Exploration and Evaluation expenditures of Oil and Gas companies, research question 1, was formulated and addressed in Chapter 6. However, the views of the preparers of Oil and Gas company's financial statements and other stakeholders were sought regarding the impact of IFRS adoption on the E&E expenditures of Oil and Gas companies. The responses obtained in this regard are analysed as follows;

Over 70% of the finance directors reported an increase in their E&E costs after the adoption of IFRS while about 30% reported that the switch from NG-GAAP to IFRS has no effect on their E&E expenditures. Majority of the Oil and Gas firms examined apply the SE accounting methods where the costs of unsuccessful Oil exploration is expensed and only costs of successful discovery of commercial quantities of Oil and Gas are capitalised. The continuation of the application of FC accounting method beyond the E&E phase is prevented by the componentisation principles of IAS 16: *Property, plant and equipment* and the impairment rules of IAS 36: *Impairment* as discussed in the previous chapter. This therefore explains why majority of the respondents reported a high increase in their E&E expenditures on transition from NG-GAAP to IFRS as shown in table 6.5.

Table 6.5: Impact of IFRS Adoption on E&E Expenditures

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Highly Increased	15	40.5	41.7	41.7
	Increased	11	29.7	30.6	72.2
	No Effect	7	18.9	19.4	91.7
	Decreased	3	8.1	8.3	100.0
	Total	36	97.3	100.0	
Missing	System	1	2.7		
Total		37	100.0		

When similar question was directed to the CEOs of the Oil and Gas firms that participated in the survey, two of the CEOs of the firms that apply the SE accounting method reported that their E&E expenditures highly increased as a result of the adoption and application of the IFRS while the firm that uses the FC accounting method observed a slight increase in its E&E expenditures. This result may explained by the fact that Integrated Oil and Gas companies mostly favour the SE accounting method where only costs associated with the discovery of commercially producible quantities of Oil and Gas reserves are capitalised while costs of unsuccessful exploration activities are expensed (PwC, 2011). Smaller Oil and Gas firms mostly apply the FC accounting method where both costs of successful and unsuccessful exploration operations are capitalised.

Oil and Gas companies applying the FC accounting method are however required under the Accounting Series Release (ASR) to do a quarterly ceiling test (Aboody, 1996; Ehiagwina et al, 2012) to determine if the companies' capitalised costs are overstated. If the companies are found to have overstated their capitalised costs, the overstated amounts must be written off (Al-Jabr & Spear, 2004). The use of SE accounting method by large Oil and Gas firms is a strategy to regulate their earnings (Baker, 1976; Al-Jabr & Spear, 2004) in order to minimise their tax obligation whereas, the capitalisation of both successful and unsuccessful costs of E&E in the FC method helps smaller Oil and Gas companies to boost their assets in order to attract investors (Eldanfour & Abushaiba, 2014). Companies that use the SE accounting method immediately post to the income statement as expenses all expenditures on dry holes thus reducing their profit figure, whereas companies that use the FC accounting method capitalise all E&E expenditures regardless of its success thus they are likely to present a higher profit figure in order to attract investors (Agbude, 2013).

It is possible to hypothesise that the high increase in E&E reported by Oil and Gas firms after IFRS adoption is an indication of significant difference in the recognition, measurement and classification of E&E expenditures between IFRS 6: *exploration for and evaluation of mineral resources* and SAS 14: *accounting in the Oil and Gas Sector* (upstream activities). Both IFRS 6 and SAS 14 permit Oil and Gas firms to use either the FC or SE method to account for their E&E costs. The favour of SE accounting method by the firms that participated in this research implies that most of their costs of unsuccessful upstream operations are expensed in the profit and loss account as incurred. Whereas, under the FC method, these costs are capitalised and appear as assets in the balance sheet and the depreciation amounts are charged to the profit and loss account.

6.5.2: Decommissioning Expenditures:

IFRS (IFRIC 1): *Changes in existing decommissioning, restoration and similar liabilities and IAS 37: Provision, contingent liabilities and contingent assets* recognize the present value (PV) of the cost of dismantling of Oil and Gas installations and the costs of restoring the oil and gas field as a liability and the corresponding costs capitalized as part of the related PP&E. Whereas NG-GAAP (SAS 23): *Provisions, contingent liabilities and contingent assets* requires Oil and Gas firms to make provision for the costs of dismantling of Oil and Gas installations and environmental restoration as the estimated future costs less the expected salvage value of the dismantled equipment amortised over the useful life of the equipment.

SAS 23: *Provisions, contingent liabilities and contingent assets* does not require downstream Oil and Gas firms to make provision for their decommissioning costs. Whereas IFRIC 1, requires downstream Oil and Gas firms to make provision for the decommissioning

expenditures of their storage tank farms, barges and other major Oil and Gas transportation and storage installations.

In order to investigate the impact of the adoption of IFRS on the provision for decommissioning of Oil and Gas installation and environmental rehabilitation expenditures, research question 2, was formulated and statistically addressed in chapter five. However, questionnaires were administered to the Oil and Gas company financial statement prepares and other stakeholders in order to obtain their thoughts regarding the impact of IFRS adoption on the provision for decommissioning of Oil and Gas installations and environmental rehabilitation expenditures. The responses obtained are analysed as follows.

Responses from the finance directors, accountants and other preparers of Oil and Gas company financial statements indicate that there is an insignificant difference between the provision for decommissioning of Oil and Gas installation and environmental rehabilitation expenditures of Oil and Gas companies under GAAP and the provision after the adoption and implementation of IFRS. These findings indicate that the adoption of IFRS does not significantly affect the provision for decommissioning of Oil and Gas installations and environmental rehabilitation expenditures. The findings further corroborates the conclusions made in the chapter five to accept the null hypotheses (H_{05} and H_{06}) that, there are no statistically significant differences between the mean and median values of the provision for decommissioning of Oil and Gas installations and environmental rehabilitation expenditures of Nigerian listed Oil and Gas companies under GAAP and the mean and median values of the provision under IFRS.

This demonstrates that IFRS standard *IAS 37*: *Provisions, contingent liabilities and contingent assets* and *the equivalent* NG GAAP SAS 23: *Provisions, contingent liabilities and contingent assets* and SAS 23 provide similar guidance in the recognition, measurement

and classification of decommissioning expenditures of Oil and Gas companies. However, it should be noted that the Nigerian Oil and Gas fields are still in their productive stage (West, 2006; Adedayo, 2011), as such no offshore decommissioning has taken place yet in Nigeria. Oil companies are however required to make provision for their decommissioning costs which are discounted and expensed to profit and loss over the life of the field using the existing pre-tax rate (Oduware, 2013). These results therefore need to be interpreted with caution and further research conducted when the Nigerian Oil and Gas fields have attained maturity and ready for decommissioning.

6.5.3: Accounting Numbers and Financial Ratios:

In order to investigate the impact of the adoption of IFRS on the Key Performance Indicators of Oil and Gas companies, research question 4 was formulated and addressed in Chapter 5. However, questionnaires were administered to preparers of Oil and Gas companies' financial statements and their views regarding the impact and implications of the adoption of IFRS on the accounting numbers and financial ratios of Oil and Gas Companies were obtained and analysed as follows;.

Inventories:

There are basically two main methods of inventory valuation under IFRS as prescribed by IAS 2: *Inventories;* the First-In-First-Out (FIFO) method and weighted average method. Prior to IFRS adoption in Nigeria however, SAS 4: *On Stock*, under the NG-GAAP provides similar guidance on inventories valuation. However, differences exist in the classification of inventory items under the two standards. Nigerian GAAP, SAS 17: *Accounting in the petroleum industry (downstream activities)* provides that spare parts and standby equipment for use with specialized trucks for the transportation of petroleum products are capitalised as part of property, plant and equipment (PPE) and depreciated over

the expected life of similar equipment in use (PwC, 2011). IAS 16: *property, plant and equipment* however, requires that spare parts and servicing equipment apart from major spare parts and standby equipment are carried as inventory and recognised in the profit or loss as consumed. According to this standard, spare parts and standby equipment only qualify as items of property, plant and equipment (PPE) when an entity expects to use them for more than one period.

The adoption of IFRS requires Nigerian Oil and Gas firms to reclassify some of their spare parts, service equipment and standby equipment that are used within one period, hitherto classified as PPE items under NG-GAAP (SAS:17) to items of inventory. This reclassification has significantly affected the value of inventories of Oil and Gas firms as depicted in Tables 6.6 and 6.7 below.

Table 6.6: Effect of IFRS Adoption on Inventories

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significant Increase	16	43.2	43.2	43.2
	Some Increase	12	32.4	32.4	75.7
	No Change	5	13.5	13.5	89.2
	Some Decrease	2	5.4	5.4	94.6
	Significant Decrease	2	5.4	5.4	100.0
	Total	37	100.0	100.0	

Table 6.7: Effect of IFRS Adoption on Inventories

Auditors of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significant Increase	10	55.6	55.6	55.6
	Some Increase	5	27.8	27.8	83.3
	No Change	3	16.7	16.7	100.0
	Total	18	100.0	100.0	

As can be seen from the tables above, about 70% of preparers of Oil and Gas company financial statements reported that the adoption and implementation of IAS 2 has a significant impact on the value of their inventories while over 80% of auditors reported a similar increase in the inventories as a result of the adoption of IFRS.

Asset Turnover Ratio:

Literature has shown that the adoption and implementation of IFRS does not increase the ATO of listed companies. Hung & Subramanyan (2004) reported a significantly lower ATO of German firms under IFRS than under the German GAAP (HGB). Dimitrious et al., (2013) reported a decrease in the ATO of Greek listed firms by about 3%, while Pazarkis et, al. (2011) reported no change in the ATO of Greece listed firms. Agca & Aktas (2007) however, reported a slight increase in the ATO of Turkish listed firms. Georgapoulou et al. (2008) reported that the asset turnover ratio (ATO), ratio of owner's equity to total assets, ratio of total liabilities to total equity and return on net worth differ significantly under IFRS compared to the GAAP figures. Results of the quantitative analysis in the previous chapter revealed that the adoption and implementation of IFRS by listed Oil and Gas companies in Nigeria resulted in a slight decrease in the ATO of these companies.

Table 6.8: Effect of IFRS Adoption on Asset Turnover

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significant Increase	7	18.9	18.9	18.9
	Some Increase	8	21.6	21.6	40.5
	No Change	12	32.4	32.4	73.0
	Some Decrease	6	16.2	16.2	89.2
	Significant Decrease	4	10.8	10.8	100.0
	Total	37	100.0	100.0	

Majority of the respondents to the questionnaire were of the view that the adoption and implementation of IFRS has a positive impact on the assets turnover (ATO) of Oil and Gas firms. About 40% of the preparers as shown in Table 6.8 and 50% of auditors reported that the ATO of Oil and Gas firms increased as a result of IFRS adoption. These findings are contrary to the results of the quantitative analysis in the previous chapter and need to be interpreted with caution. This suggest that there are mixed reactions to the impact of IFRS adoption on ATO of Oil and Gas companies.

Equity:

Strong evidence was found in literature regarding the correlation between IFRS adoption and the flow of foreign direct investment (FDI). Lawrence et al. (2012) applied the ordinary least square (OLS) approach to investigate the impact of IFRS adoption on the flow of FDI. They reported a significant increase in the flow of FDI as a result of IFRS adoption in the 124 countries they investigated. Hung and Subramanyan (2004) reported that the total assets and book values of equity as well as variability of book value and net income are significantly higher under IAS/IFRS than the under the German GAAP. Stergios et al., (2005), Georgakopoulou et al., (2010), Pazarskis et al. (2011) and Terzi et al., (2013) reported that a transition from GAAP to IFRS has a statistically significant effect on the book value of equity. Tsalavoutas and Evans (2010) reported a positive impact on shareholder's equity and net profit of Greek listed firms as a result of transition from Greek GAAP to IFRS. Okpala (2012) reported a significant relationship between IFRS adoption and flow of FDIs in Nigeria. Contrarily, Dunne et al. (2008) reported that net equity under GAAP was higher than IFRS by as much as 153% in the UK, 106% in Ireland but slightly lower under GAAP in Italy (97%). Lantto and Sahlstrom (2009) reported a slight decrease in equity of Finnish listed firms on converting their GAAP based financial statements to IFRS based financial

statements. Efobi et al. (2014) used the baseline model to analyse sample of 92 developed and developing countries. They argued that IFRS adoption was not able to attract much FDI in these countries rather the institutional development in these countries plays a substitutive role in this regard. They however reported that IFRS adoption improves the quality of global financial reporting and improve investment decisions.

An analysis of the questionnaire responses as shown in Table 6.9 indicates that about 80% of the preparers of Oil and Gas company financial statements are of the view that IFRS adoption and implementation increases the level of equity Oil and Gas companies.

Table 6.9: Effect of IFRS Adoption on Equity

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significant Increase	16	43.2	43.2	43.2
	Some Increase	13	35.1	35.1	78.4
	No Change	4	10.8	10.8	89.2
	Some Decrease	4	10.8	10.8	100.0
	Total	37	100.0	100.0	

These findings suggest a significant increase in the flow of investment to the Nigerian Oil and Gas sector as a result of increase in investor confidence in the Nigerian Oil and Gas sector after the adoption and implementation of IFRS.

Impairment of Assets:

It is possible the value of unproved properties of an Oil and Gas company may deteriorate over time as a result of events or circumstances beyond the control of the company (Ehiagwina et al., 2012). This diminution in value may ultimately affect the balance sheet of the company. IAS 36*: impairment of Assets* issued by the IASB provides that the carrying value of an asset should not be more than their recoverable amount. If an asset is carried at a value more than its recoverable amount through use or sale of the asset, the asset

is said to be impaired. IAS 36 requires an entity to recognise an impairment loss as an expense in the profit and loss account which is the excess of the carrying amount over the recoverable amount. In the Oil and Gas sector, IFRS 6: *Property, plant and equipment* provides an alternative impairment testing regime for E&E assets that differ from the general requirement for impairment testing set out in IAS 36. The revised practice of reporting assets values is regarded as an improvement when compared to the previous practice (Othata, et al. 2013) but the major challenge to the accountants in Africa is that of conducting impairment checks in order to determine the carrying costs of the assets. IFRS 6 provide that an Oil and Gas entity only assess for impairment when facts and circumstances suggest that the impairment exists (PwC, 2011). There is no equivalent standard to IAS 36 under NG-GAAP however, SAS 9: *Accounting for depreciation* is the closest standard that provides guidance similar to IAS 36. This standard provides that the costs of petrochemical equipment and costs associated with refining of petroleum products should be depreciated on a straight line basis over the useful life of the asset (Ehiagwina, 2012). This guidance is regarded as inadequate and not comprehensive enough to cater for the highly complicated and capital intensive Oil and Gas sector.

About 60% of the respondent to the questionnaire reported that the application of IFRS 6 instead SAS 9 after IFRS adoption has positively impacted on their impairment amount and leads to reporting of values that closely reflect market reality. However, 30% reported that the adoption had a negative impact on the impairment amount of the Oil and Gas assets.

The mixed reaction to the impact of IFRS adoption on the impairment of Oil and Gas assets is because prior to IFRS adoption, there was no substantive standard in Nigeria that provides guidance on impairment checks of Oil and Gas assets. The adoption of IFRS 6 was

regarded by financial analysts and other stakeholders in the Oil and Gas sector as the long awaited solution to the controversies surrounding the application of SAS 9 as a guide in impairment checks of Oil and Gas assets.

Intangible Assets:

Guidance on intangible assets is provided by IAS 38: *Intangible assets* under IFRS where an intangible asset is identified as non-monetary asset without physical substance which may be acquired or internally generated (PwC, 2011). IAS 38: *Intangible assets* provides guidance on separate acquisition of assets, acquisition of assets as part of business combination, acquisition by way of a government grant, exchanges of assets, internally generated goodwill and internally generated intangible assets. Under NG-GAAP, there is no equivalent standard that provides guidance on intangible assets. However, guidance is only available on research and development (R&D) costs under SAS 22: *Research and development*, and does not cover R&D costs related to the exploration and extraction of Oil and mineral resources.

Table 6.10: Effects of IFRS Adoption on Intangible Assets

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Highly Positively	3	8.1	8.1	8.1
	Positively	4	10.8	10.8	18.9
	No Change	5	13.5	13.5	32.4
	Negatively	13	35.1	35.1	67.6
	Highly Negatively	12	32.4	32.4	100.0
	Total	37	100.0	100.0	

As shown in Table 6.10 above, the adoption and application of IFRS negatively affects the value of intangible assets of Oil and Gas firms as reported by over 70% of the preparers of financial statements. IAS 38 provides specific guidance on the recognition, measurement and classification of intangible assets of Oil and Gas firms including R&D. The

standard provides that expenditures incurred in the development phase of Oil and Gas extraction are recognised as intangible assets if and only if the entity can demonstrate the technical feasibility of completing the intangible asset and demonstrate that the asset will generate probable future economic benefits (IFRS, 2012). Findings in the present study are consistent with Ji and Lu (2011) that investigated the relationship between value relevance and reliability of capitalisation of intangible assets. They reported that the value relevance of intangibles decline as a result of IFRS adoption.

It can be hypothesised that IFRS has more stringent requirements for recognising of capitalised intangible assets compared to the requirements under GAAP. IFRS also has a more conservative approach in the recognition, measurement and classification of Intangible assets compared the GAAP.

Return on Assets:

There are mixed reaction as to the impact of the adoption of IFRS on return on assets (ROA) as shown in Table 6.11 below. A large proportion (38%) of preparers of Oil and Gas Company financial statements are of the view that the adoption and implementation of IFRS leads to an increase in the ROA of Oil and Gas companies. Results of the quantitative analysis reported in the previous chapter also reveal a significant increase in the ROA of listed Oil and Gas companies in Nigeria after IFRS adoption.

Table 6.11: Effects of IFRS Adoption on Return On Assets

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significant Increase	14	37.8	37.8	37.8
	Some Increase	12	32.4	32.4	70.3
	No Change	10	27.0	27.0	97.3
	Some Decrease	1	2.7	2.7	100.0
	Total	37	100.0	100.0	

Findings in this study are consistent with findings of Iatridis, (2007) that reported the adoption of IFRS significantly increased the ROA of Greek listed firms and argued that the fair value orientation of IFRS was responsible for the increase. Contrarily however, Hung & Subramanyan (2004) reported a significant decrease in ROA of German firms on transition from HGB to IFRS. Most of the companies analysed apply the SE accounting method where only costs that lead to the discovery and production of commercial quantities of hydrocarbon resources are capitalised. I would argue that the significant increase ROA after IFRS adoption is a reflection of the ability of these companies to efficiently utilise their E&E assets towards the discovery of commercially producible quantities of Oil and Gas resources.

Return on Invested Capital:

About 51% of the preparers of financial statements that participated in this research are of the view that the adoption and implementation of IFRS has a significant effect on the return on invested capital (ROIC) of Oil and Gas firms as indicated in Table 6.12 below. The quantitative analysis result reported in the previous chapter indicates a statistically significant increase in the ROIC of the Oil and Gas companies. There are similarities in results between the present study and that those of Lantto and Sahlstrom, 2009; Punda, 2011 that reported a significant increase in the ROIC of Finnish and UK listed firms respectively after the transition from Finnish and UK GAAP to IFRS.

Table 6.12: Effects of IFRS Adoption on Return On Invested Capital

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significant Increase	19	51.4	51.4	51.4
	Some Increase	10	27.0	27.0	78.4
	No Change	7	18.9	18.9	97.3
	Some Decrease	1	2.7	2.7	100.0
	Total	37	100.0	100.0	

Gross Profit Margin:

Strong evidence of increase in GPM was found when the financial statements of listed Oil and Gas companies were analysed in the previous chapter. Our survey responses reveal that majority of the preparers of Oil and Gas company financial statements reported that the adoption of IFRS has a positive impact on the GPM. About 43% of the respondents reported an increase in the GPM while 22% reported that the adoption of IFRS has no effect on the GPM and about 10% reported that the adoption of IFRS has decreased the level of GPM as shown in Table 6.13 below.

Table 6.13: Effects of IFRS Adoption on Gross Profit Margin

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significant Increase	16	43.2	43.2	43.2
	Some Increase	9	24.3	24.3	67.6
	No Change	8	21.6	21.6	89.2
	Some Decrease	4	10.8	10.8	100.0
	Total	37	100.0	100.0	

Consistent with these results, Stergios et al. (2005) reported no significant difference between the GPM of Greek listed firms under GAAP and IFRS. Hung and Subramanyan (2004) observed an insignificant difference between the mean values of GPM reported under HGB (German GAAP) and IAS. They however reported a significant increase in the GPM under IAS at 10% confidence level. A similar result was reported by Dimitrios et al. (2013) that a transition from Greek GAAP to IFRS did not significantly increase the GPM Greek listed firms. A study conducted by Dunne et al. (2008) on some listed firms in the UK, Italy and Ireland reported that gross profit under GAAP is only 66%, 85% and 89% of the gross profit under IFRS in the UK, Italy and Ireland respectively.

6.5.4: Contractual Relationships (JVs and PSCs):

The JV and PSC are the main contractual agreements entered between upstream Oil and Gas companies and the host Government for the joint development of jointly held Oil Prospecting Licences (OPLs) or Oil Mining Leases (OMLs) and facilities to explore, develop and produce hydrocarbon resources. The objective of the host Government is to maximise wealth from its natural resources by encouraging appropriate level of exploration and production of Oil and Gas resources. The objective of the Oil and Gas companies however, is to build equity and maximise wealth by finding and producing Oil and Gas reserves at the lowest possible cost and highest possible profit margin (World Bank, 2014).

In Nigeria, this type of operating agreement is entered between Oil and Gas companies and the Nigerian National Petroleum Corporation (NNPC) and a memorandum of agreement with the Federal Government of Nigeria to explore and produce Oil and Gas resources. Six of the seven NNPC JV agreements with Shell, Mobil, Chevron, Agip, Elf and Texaco produced about 97% of Nigeria's Crude Oil (NNPC, 2013).

Under PSC of contractual arrangements, the IOC provides the necessary finance and technical skills required to explore and produce the Oil and Gas resources and bear all the risks associated with the project. On successful discovery of commercial quantities of Oil and Gas resources, IOCs are required to pay a royalty on the total Crude Oil produced to the Nigerian Government through the NNPC after which the IOC is entitled to a predetermined percentage of the production from which it may recover its costs known as Cost Oil. When Royalty and Cost Oil have been deducted from the total production, the remaining Crude Oil, known as Profit Oil is shared between the IOC and Nigerian Government in accordance with the terms of the contract. Finally, the IOC is required to pay tax on its share of profit oil to the Federal Government. However, the Oil and Gas companies and the host governments often

struggle to come to terms with the sharing formula of the Oil revenues as affirmed by Stevens et al. (2013) in the Chatham House Report 2013 as follows;

> *"Oil and Gas Companies and Governments are always competitors when it comes to the distribution of mineral and hydrocarbon revenues and profits, despite their mutual drive to unlock potential wealth"*
>
> *Stevens, et al. Chatham House Report, 2013 pg. Viii*

The international accounting standard IAS 31: *financial reporting of Interests in Joint Ventures* under the IFRS was issued in December 1990 to provide guidance on the accounting for an entity's interest in various forms of joint ventures (JVs), jointly controlled operations, jointly controlled assets and jointly controlled entities (IFRS, 2011). However in order to decentralised this guidance, the IASB replaced IAS 31 with IFRS 11: *Joint arrangements* and IFRS 12: *Disclosure of interest in other entities* with effect from January 2013. In Nigeria SAS 29: *Interest in Joint ventures* provides guidance as to the scope of interest in JVs, the alternative methods that might be adopted and the limited circumstances under which interest in joint ventures might be accounted for at cost, less any provision for impairment. The standard prescribes how joint assets, liabilities, income and expenses should be accounted for in the financial statements of venturers and investors. The definition and classification of Joint Ventures under IFRS are comparable to the definition of Joint Venture and classification under GAAP.

Based on the conflicting objectives of host Governments and the Oil and Gas companies in terms of tax remittances, royalty payments, bonuses and profit oil, this research study will attempt to address the following research question;

Question 5. To what extent does the adoption and implementation of IFRS affect the contractual relationships between Oil and Gas listed companies and the Nigerian Government in terms of Joint Ventures (JVs) and Production Sharing Contract (PSCs) as it relates to Taxes, Royalties, Bonuses and Profit Oil Split?

The impact of the adoption of IFRS on the contractual relationships between Oil and Gas companies and the host Governments in terms of JVs and PSCs as it relates to taxes, royalties and Profit Oil Split will be addressed by the responses of the questionnaires administered to preparers of Oil and Gas companies' financial statements and other stakeholders as follows;

The majority of the questionnaires responses reveal that the contractual relationships between Oil and Gas companies and the Nigerian Government in terms of Joint Ventures (JVs) and Production Sharing Contracts (PSCs) is positively affected by the adoption and implementation of IFRS. About 70% of the preparers of Oil and Gas company financial statements reported that the adoption of IFRS has a highly positive impact on the JV agreement between NNPC and the Oil and Gas companies.

An important issue emerging from these findings is that most of the Oil and Gas companies would like to protect their integrity and maintain their ethical standards and core values in terms of adhering strictly to the terms of the contractual agreements. However, they find themselves in a difficult situation and faced with choice of either violating some of their core values and maintain the relationships or adhere to their core values and jeopardise their

relationships with Nigerian Government. Despite their desire to maintain their core values, most of the Oil and Gas companies opt for the former option.

The respondents were given an opportunity to provide additional feedback on their views regarding the adoption and implementation of IFRS in Nigeria through some open ended questions. A number of issues have been identified in relation to the adoption and implementation of IFRS in Nigeria as stressed by one of the respondents.

"Nigeria should have adopted the IFRS long ago, the accounting and finance system would have stabilised by now. I am a strong advocate of harmonisation of accounting standards but the system in Nigeria is slightly different from what obtains in other jurisdictions. Proper monitoring and strict compliance with the guidance of these standards are the major concerns. The Financial Reporting Council should do more in this regard".

CEO, Case "A" November 8, 2014

The comment above from Case "A" illustrates that the timing of the adoption of IFRS in Nigeria is flawed *ab initio*. Nigeria as the biggest economy in Africa and the largest Crude Oil producer and exporter south of the Sahara ought to have commenced preparation for IFRS adoption shortly after the pronouncement of EC Regulation 1606/2002. This regulation requires all EU listed entities to apply and prepare their financial statements in accordance with the requirements of IFRS. Nigeria as a former colony of the UK and a major trade partner to many EU countries should have converged the NGAAP with the IFRS in preparation for a complete adoption of the new accounting policy much earlier than 2010.

The defunct Nigerian Accounting Standards Board (NASB) has been linked with inefficiency and poor monitoring of compliance with the SASs by listed companies (Yahya and Adenola, 2011). This lead to its dissolution and the emergence of a more aggressive Financial Reporting Council (FRC) which was given more powers to ensure compliance with the regulatory frameworks of IFRS and recommend for prosecution of any listed company

found in breach of these frameworks. This therefore justifies the comments of Case "A" and other comments and reservations regarding the readiness and timing of IFRS adoption in Nigeria and the capacity of the FRC to deal with non-compliance with this policy.

In my opinion however, the emergence of a more powerful FRC from the defunct weak NASB to monitor the strict compliance with IFRS framework and the establishment of IFRS academy dedicated to the teaching and learning of IFRS are strong indications of the commitment of Nigeria to the full implementation of IFRS frameworks. However, there is need to sensitise the general public especially investors and prospective investors in the Oil and Gas sector as to the implications of the policy changes on KPI and other industry specific performance measures of the Oil and Gas companies.

Effect on Taxes, Royalties and Profit Oil Split:

The Petroleum Profit Tax (PPT) and Royalties are the main sources of tax revenue for the Nigerian Government from Oil and Gas firms operating in Nigeria. However, Oil and Gas firms operating in Nigeria are bound by a confidentiality clause in their contractual agreement with the Nigerian Government which prevents them from disclosing the amount paid to the Nigerian Government in terms of taxes and royalty. The main objectives of the proposed Petroleum Industry Bill (PIB, 2011) recently passed into law by the Nigerian National Assembly are to change the organisational structure and fiscal terms governing the Oil and Gas sectors. Some of the contentious clauses are the potential renegotiation of JVs and PSCs agreements with IOCs, changes in taxes and royalty structures, restructuring of the NNPC, mandatory contribution of 10% of monthly net profits to the Petroleum Host Community Fund and to expunge the confidentiality clause (IAT 173) for information on upstream tax, royalties, fees and bonus payments in the contractual agreements so that Oil and Gas firms would be more transparent and be forced to publish all payments due to the

Nigerian Government in terms of taxes and royalty (EIA, 2013). The concerns of most of the IOCs operating in Nigeria is that the proposed changes to fiscal terms may make some of their projects commercially unviable particularly Deepwater projects that require significant amount of capital (EIA, 2013).The Nigerian Extractive Industries Transparency Initiative (NEITI) audit of 1999-2008 reveals that the actual amount of Crude Oil produced in Nigeria is not known and that Oil and Gas companies pay taxes and royalties through an unregulated self-assessment process. This process encourages corruption and led to beneficial interpretations of taxes by Oil and Gas companies resulting in reduced revenue for Government both from PPT and Royalty payments (Ahmed, 2012).

Petroleum taxes generally fall into two main categories - those that are calculated on profits earned (income taxes) and those calculated on sales (royalty or excise taxes). In Nigeria, the profits of the oil producing companies are chargeable to tax under the PPTA and are also governed by the terms of any relevant memorandum of understanding or PSC. The tax rate under the PPTA is 85% for JV companies and 50% for PSC companies operating in deep offshore sites. However, a special rate of 65.75% applies when a company has not yet started the sale or bulk disposal of chargeable oil under a programme of continuous production, and all preproduction capitalized costs have not been fully amortised (Ajayi 2013). Capital allowances are charged at the rate of 20% per annum in the first four years of production, 19% in the fifth year and the remaining 1% retained in the books of the company. Firms in PSCs are however, entitled to an investment tax credit of 5%. Royalty is payable in ranges from 0 – 20% of production, depending on the location and depth of the area of production. Other taxes and levies in the Oil and Gas sector include the education tax at 2% and the Niger Delta Development Commission (NDDC) levy at 3%. VAT is generally applicable to Oil and Gas operations at a flat rate of 5%. The classification and treatment of

taxes under different accounting regimes will have a significant impact on the firm's financial statement. Talking about these views, one participant thought that;

"For Nigerian Government to sanitise the Oil and Gas sector, these three issues must be addressed, 1. The controversial issues in the PPT Act (PPTA 1990) must be streamlined, 2. The contentious non-circumvention and non-disclosure clause (IAT 173) in the JV agreements must be expunged and 3. The immediate passage of the Petroleum Industry Bill (PIB) into law".

CEO Case "B" December, 2014

One of the main clauses of the PIB as discussed earlier is a recommendation to expunge the non-circumvention and non-disclosure of offshore remittances information clause in the contractual agreements between Nigerian Government and Oil and Gas companies. The view of one of the respondents in this regard was;

"Oil and Gas companies can only remit the appropriate taxes and royalties when the PIB is fully passed into law and the over 40 year old JVs and PSCs have been reviewed to reflect the current realities in the Oil and Gas sector".

Finance Director, Case "B". November, 2014

The issues as pointed out by the above respondents have been subjects of controversy in Nigeria for many years. The PPTA of 1990 have been recommended for review by many analysts by virtue of its failure to make the desired impact in the industry (Nwete, 2004). The non-circumvention and non-disclosure clause for the remittances of taxes, royalties and bonuses by Oil and Gas companies to the Nigeria Government is responsible for the lack of transparency in the dealings between the Nigerian Government and the IOCs which results in corruption and huge financial responsibility (Saidu & Sadiq, 2014) on the part of the Nigerian Government. I would concur with the suggestion of Case "B" that the information confidentiality clause be expunged to make way for transparency and accountability in the

Oil and Gas sector and the general economy in line with the policy direction of the present administration.

The Nigerian Petroleum Industry Bill (PIB) intended to revamp the entire hydrocarbon sector has however been haphazardly passed into law this year and waiting presidential assent. Despite been passed into law, the recommendations of the PIB should be fully implemented and all contentious issues be fairly resolved for the benefit of all stakeholders in the Oil and Gas sector.

Table 6.14: Effect of IFRS Adoption on Taxes

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significantly Higher Tax	7	18.9	19.4	19.4
	Higher Tax	11	29.7	30.6	50.0
	No Change	8	21.6	22.2	72.2
	Lower Tax	8	21.6	22.2	94.4
	Significantly Lower Tax	2	5.4	5.6	100.0
	Total	36	97.3	100.0	
Missing	System	1	2.7		
Total		37	100.0		

As anticipated, two CEOs of Oil and Gas firms disclosed that the adoption and implementation of IFRS has little or no impact on their tax and royalty remittances to the Nigerian Government. However, 49% the preparers of Oil and Gas company financial statement reported a higher increase in tax and 50% reported a higher increase in royalty payments to Nigerian Government while 66% reported that the adoption of IFRS has no impact on tax and royalty payments. Whereas 70% of the CEOs reported that the adoption of IFRS has increased the amount of their royalty payments to the Nigerian Government as indicated in Tables 6.14 and 6.15.

Table 6.15: Impact of IFRS Adoption on Royalty

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significantly Higher Royalty	7	18.9	19.4	19.4
	Higher Royalty	11	29.7	30.6	50.0
	No Change	16	43.2	44.4	94.4
	Lower Royalty	2	5.4	5.6	100.0
	Total	36	97.3	100.0	
Missing	System	1	2.7		
Total		37	100.0		

On the effects of the adoption of IFRS on Profit Oil Split, 70% of the CEOs reported that the adoption of IFRS negatively affected their share of POS while about 40% of the finance directors reported that the adoption of IFRS had no effect on their POS as shown in Table 6.16.

Table 6.16: Impact of IFRS Adoption on Profit Oil Split

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significantly Higher POS	6	16.2	16.7	16.7
	Higher POS	7	18.9	19.4	36.1
	No Effect	15	40.5	41.7	77.8
	Lower POS	5	13.5	13.9	91.7
	Significantly Lower POS	3	8.1	8.3	100.0
	Total	36	97.3	100.0	
Missing	System	1	2.7		
Total		37	100.0		

The anticipated scenario is that the adoption and implementation of IFRS would negatively affect the relationships between Oil and Gas companies and the Nigerian Government. Reason being that IFRS is more transparent and fair value oriented and the guidance provided by most of the IFRS standards would compel Oil and Gas companies to disclose in their financial statements, the details of all payments in terms of commissions,

taxes, royalties and any other form of remittance in respect of their joint arrangements with the Nigerian Government.

The passage of the PIB and review of PPTA of 1990 would negatively affect the relationship that has existed for over 40 years between the IOCs and the Nigerian Government hence the staunch resistance and sabotage by major Oil and Gas companies, powerful government officials and other influential personalities in implementing these policies.

Consequently, it was very difficult to extract information from all the respondents regarding upstream remittances in respect of taxes, royalties and other payments to the Nigerian Government by Oil and Gas companies. In JV agreements, the wording of a confidentiality clause often provides that;

"All data and information acquired or received by any Participant under this Agreement shall be held confidential during the continuance of this Agreement and for period of (X) years thereafter and shall not be divulged in any way to any third party, without the prior written approval of all the Participants".

From the views of the CEOs and Finance Directors, it could be deduced that the adoption and implementation of IFRS alone would not bring the desired and anticipated immediate economic growth. More needs to be done in terms of review of the long established contractual relationships between Oil and Gas companies and the Nigerian Government, review and restructure of the Petroleum Profit Tax act of 1990 and the immediate implementation of the recommendations of the Petroleum Industry Bill (PIB). However, the findings from this research while preliminary, suggest that the adoption and implementation of IFRS would bring sanity and transparency in Oil and Gas sector while the

passage of PIB into law would compel the disclosure of Oil and Gas company financial information hitherto being made inaccessible to investors, analysts and the general public.

6.5.5: Accounting Quality and Ease Comparability of IFRS Financial Statements

For several years great effort has been devoted to the study of the impact of the transition from GAAP to IFRS on the accounting quality of listed entities. However, majority of the previous studies (see Barth et al., 2005, 2008; Morais and Curto, 2009; Lee et al., 2013) applied quantitative techniques to measure the accounting quality variables in terms of earning management, timely loss recognition and value relevance of accounting information of the listed firms. Moreover, none of the studies reviewed so far investigated the impact of the transition on the accounting quality of listed Oil and Gas companies. The focus of this research study is to void the existing knowledge gap and add to the existing literature by investigating the impact of the adoption of IFRS on the accounting quality of listed Oil and Gas entities, ease of audit of IFRS based financial statements, ease of preparation and ease of comparison of the financial statements among competitors across the Oil and Gas sector.
This following research question was formulated in order to achieve this objective;

Question 6. To what extent does the adoption and implementation of IFRS affect the ease of preparation and presentation of Oil and Gas company financial statements, ease of audit of the financial statements, quality and comparability of the financial statements among competitors across the Oil and Gas sector?

In order to adequately address the above formulated research question, questionnaires were administered to finance directors, preparers of Oil and Gas company financial statements and auditors of the financial statements. The thoughts and views of the various respondents regarding the impact of IFRS adoption on ease of preparation and explanation of

IFRS based financial statements in relation to GAAP based financial statements, ease of audit of the financial statements, quality and comparability of the financial statements were obtained and analysed as follows;

Ease of Explanation of Company Results:

In terms of ease of explanation and conveying the financial results to the management, investors and other stakeholders, more than half (60%) of preparers of financial statements and auditors agreed that it is easier to present and explain IFRS based financial results to management and other stakeholders compared to GAAP based financial statements. However, less than a third (30%) of the finance directors reported that it is more difficult to explain IFRS based financial statements to the management and other stakeholders compared to GAAP based financial statements. Overall therefore, it is easier to explain and convey the financial information of IFRS based financial statements to management, investors and other stakeholders than GAAP based financial statements. This is because IFRS are more transparent and easier to apply in the preparation and presentation of financial statements compared to GAAP.

Table 6.17: Ease of Explanation of Company Results

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Much Easier	12	32.4	32.4	32.4
	Slightly Easier	9	24.3	24.3	56.8
	No Change	5	13.5	13.5	70.3
	Difficult	7	18.9	18.9	89.2
	Very Difficult	4	10.8	10.8	100.0
	Total	37	100.0	100.0	

Ease of Comparison of IFRS Financial Statements:

In the comparison of IFRS consolidated financial statements among competitors across the Oil and Gas sector, over 70% of preparers of Oil and Gas company financial statements reported that it is easier to compare IFRS based consolidated financial statements than GAAP based consolidated financial statements across competitors in the Oil and Gas sector. About 14% however, reported that it is difficult to compare IFRS based consolidated financial statements than GAAP based financial statements across competitors in the Oil and Gas sector.

Table 6.18: Ease of Comparison of Results among Competitors

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Much Easier to Compare	16	43.2	43.2	43.2
	Slightly Easier to Compare	13	35.1	35.1	78.4
	No Effect	3	8.1	8.1	86.5
	Slightly Difficult to Compare	4	10.8	10.8	97.3
	More Difficult to Compare	1	2.7	2.7	100.0
	Total	37	100.0	100.0	

Findings in this study are consistent with Jermakowicz (2007) that reported an increase in the comparability of reported accounts as well as level of transparency in German listed companies. Terzungwe (2012) also reported that the adoption and application of IFRS results in ease of comparison of financial statements leading to global financial harmonization, cost efficiency and cost reduction, access to capital, enhanced cross-border listing, better investment opportunities, increased transparency, opportunity to review existing policies, better borrowing terms, flexibility, reduced cost of capital, access to global capital markets, enhanced competitiveness and the elimination of the need for reconciliation of information reported under different national standards.

Ease of Auditing of IFRS Financial Statements:

Majority of the auditors of Oil and Gas company financial statements felt that it was more difficult to audit IFRS based financial statements compared to GAAP based financial statements. However, about 20% reported that there was no difference in the ease of audit of GAAP and IFRS financial statements.

Table 6.19: Ease of Auditing IFRS Financial Statements

Auditors of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Much Easier	4	22.2	22.2	22.2
	Slightly Easier	2	11.1	11.1	33.3
	No Change	3	16.7	16.7	50.0
	Slightly Difficult	5	27.8	27.8	77.8
	More Difficult	4	22.2	22.2	100.0
	Total	18	100.0	100.0	

This finding was unexpected and suggests that auditors are still familiarising themselves with the guidance and application of the IFRS standards and the formats of IFRS based financial statements. The auditing of IFRS financial statements was regarded by majority of the auditors as cumbersome and more time consuming compared to GAAP based financial statements.

Quality of IFRS Based Financial Statements:

A considerable amount of literature has been published on the impact of IFRS adoption on the quality of financial statements. The quality of IFRS based financial statements compared to GAAP based financial statements in terms earnings management, timely loss recognition and value relevance is reported to be higher by about 80% preparers of financial statements and 50% of auditors. However, 6% of the preparers believe that IFRS

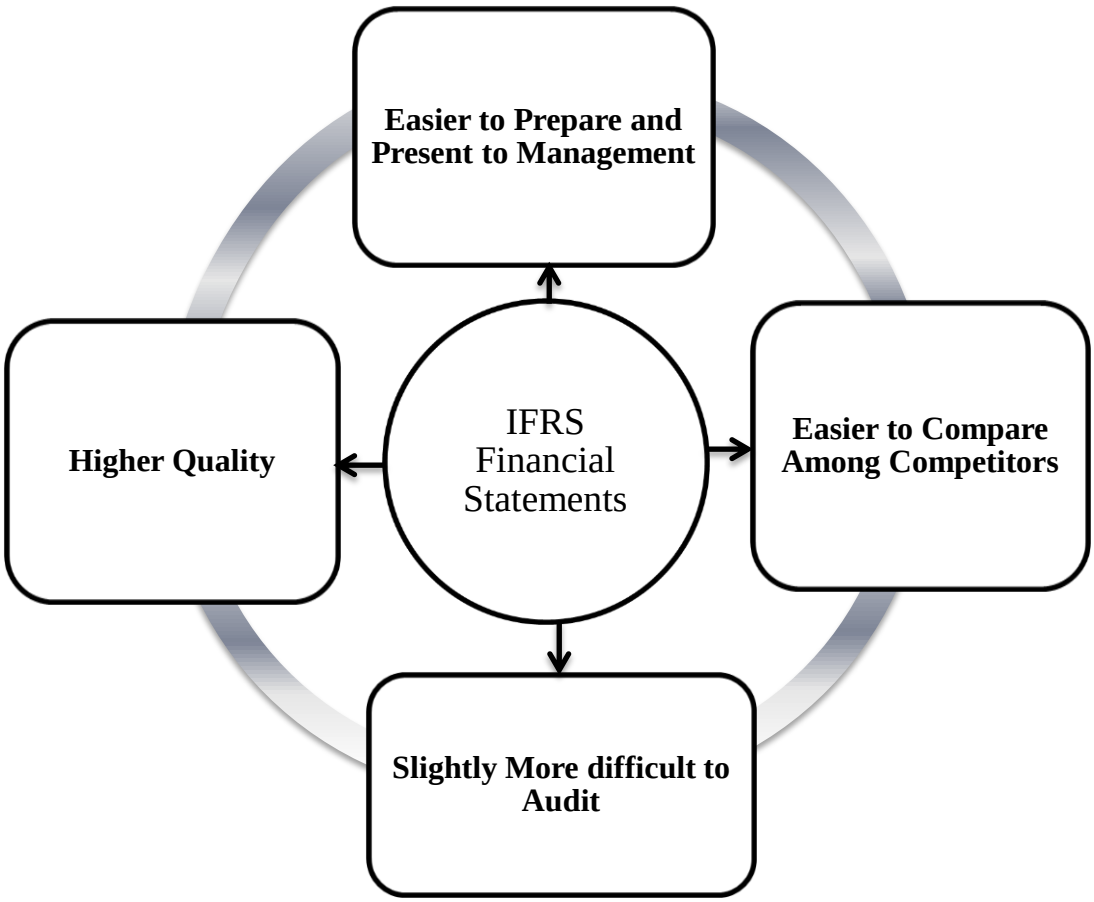
based financial statements are of lower quality compared to GAAP based financial statements while about 6% of there is no difference in quality between IFRS based and GAAP based financial statements. Overall therefore, majority of the respondents reported that the mandatory adoption and implementation of IFRS has improved the quality of the financial reports.

Table 6.20: Effects of IFRS Adoption on Quality of Financial Statements

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Much Higher Quality	19	51.4	51.4	51.4
	Slightly Higher Quality	13	35.1	35.1	86.5
	No Effect on Quality	3	8.1	8.1	94.6
	Lower Quality	2	5.4	5.4	100.0
	Total	37	100.0	100.0	

The Figure 6.20 below represents the general conclusion from the findings of this study and substantiate the results of previous studies regarding the effects of IFRS adoption on the financial statements of listed entities. The results show that IFRS financial statements are easier to prepare and present to management, they are of higher quality, easier to compare among competitors across the Oil and Gas sector but slightly more difficult to audit compared to GAAP based financial statements.

Figure 6.2: Characteristics of IFRS based Financial Statements



Majority of the findings in the present study are consistent with the findings of Barth et, al. (2005, 2008); Paananen, (2008); Lin et al. (2009, 2012) that the mandatory adoption of IFRS has resulted in higher quality financial reports compared to the quality of financial reports under GAAP. A similar study conducted by Ballas et al. (2010) on the effect of IFRS on Greek listed firms using mixed methods reported that IFRS adoption has significantly improve the quality of financial reporting in Greece, in terms of reliability, transparency and comparability of financial statements. More recently, a study conducted by Muller (2014) indicate a significant increase in quality of financial reports of listed companies on London, Paris and Frankfurt Stock Exchange suggesting higher quality disclosure and transparency of financial statements.

In South Africa, Ames (2013) reported that the adoption of IFRS has improved the quality of some but not all financial reporting components in South Africa. In Ghana, Agyei-Mensah (2013) reported a significant improvement in quality of financial reports after adopting IFRS in Ghana. In Nigeria, Terzungwe (2012) analysed the responses of a survey on the effect of IFRS adoption on quality of financial reports in Nigeria and reported that 61% of the respondents agreed that the adoption and implementation of IFRS enhances the quality of financial reports of Nigerian firms.

In contrast to these findings however, Athianos et al. 2005; Hung and Subramanyan, 2007; Lin et al. 2012 and Christensen et al. (2008) reported that the adoption of IFRS does not necessarily result in decreased earnings management, increased timely loss recognition or increased value relevance of accounting information of listed firms as envisaged. Outa (2011) reported that the quality of financial reports of Kenyan listed entities before IFRS adoption remained almost the same with the quality of financial reports after IFRS adoption.

There are several possible explanations for these results. Literature has shown that different researchers use different approaches and methods to measure the quality financial reports. The yardstick applied to measure quality could potentially be responsible for the different views and results on quality of financial statements. Previous studies like Soderstom and Sun (2007) argued that increase in quality of financial statements should not be hinged on IFRS adoption alone, rather on the country's legal and political system, quality of the standards, the country's regulatory and enforcement framework and financial reporting incentives.

The findings from this research reaffirm the views of proponents of IFRS adoption and serve to address the research question on the significant impact of the adoption and implementation of IFRS on accounting quality, ease of comparability of IFRS financial statements among competitors across the Oil and Gas sector, ease of preparation and presentation of the financial statements to the management and other stakeholders. However, the results result reveals that IFRS based financial statements were slightly more difficult to audit compared to GAAP based financial statements.

6.6: CONCLUSION:

This research has investigated the impact of the adoption of IFRS on the financial statements of listed Oil and Gas companies in Nigeria and other African countries. Statistical analyses of secondary and primary data were conducted concomitantly. In the secondary data statistical analysis, the accounting numbers, financial ratios and industry specific performance measures of Oil and Gas companies were computed and analysed and the results presented and discussed in chapter five. In the primary data statistical analysis conducted in this chapter, questionnaires were administered to the CEOs of Oil and Gas companies, Finance Directors, preparers of Oil and company financial statements, Auditors and other key stakeholders in the adoption and implementation of IFRS in Nigeria.

The findings from the primary data analysis shows that majority of the respondents were fully conversant with the guidance and application of IFRS standards in terms of classification, measurement and recognition of assets, liabilities, revenues and expenditures of Oil and Gas companies. However, the results also show that some of the auditors were still struggling with the appropriate audit procedures to apply in the audit of IFRS based financial

statements. The results show that auditors find it easier to audit GAAP based financial statements compared to the audit of IFRS based financial statements.

Summing up the results from this chapter, it can be concluded that IFRS based financial statements are easier to prepare and present to management and other stakeholders, easier to compare among competitors across the Oil and Gas sector, they are of higher quality but slightly more difficult to audit compared to GAAP based financial statements.

The contractual relationships between Oil and Gas companies and the host Governments in terms of JVs and PSCs are full of controversies and conflicts (Stevens, 2013) in terms of sharing the risks and rewards of the Crude Oil exploration and production. The objective of the host Government is to maximise wealth from its natural resources by encouraging appropriate level of exploration and production of Oil and Gas resources. The objective of the Oil and Gas companies however, is to build equity and maximise wealth by finding and producing Oil and Gas reserves at the lowest possible cost and highest possible profit margin (World Bank, 2014).

The questionnaire analysis results show that majority of the respondents believed that the adoption and implementation of IFRS has a positive impact on the relationships between Oil and Gas companies and the host governments. However, the impact of the adoption and implementation of IFRS on taxes, royalties and Profit Oil Split could not be substantiated due to the existence of a confidentiality clause on offshore remittances in the contractual agreement between the Oil and Gas companies and Nigerian Government. This confidentiality clause prevented either party to the contract from revealing to a third party the amount of remittances in terms of taxes, royalties, bonuses, Profit Oil Split or any form of offshore information contained in the contractual agreement.

The next chapter which is the concluding chapter of this thesis will present a summary of all the chapters and discuss the main findings of this empirical research as presented in chapters 5 & 6. The contributions of this research to literature and body of academic knowledge will also be discussed in details. Finally, the limitations of the research study will be highlighted and recommendations will be made to future researchers in the area of accounting and financial reporting in the Oil and Gas sector.

CHAPTER SEVEN:

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

CHAPTER SEVEN: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

7.1: INTRODUCTION:

The increased globalisation of capital markets and the desire by many African countries to diversify their economies by attracting foreign capital investments influenced the haphazard decision to align their Generally Accepted Accounting Principles with the International Financial Reporting Standards (Lawrence et al., 2012)

Proponents of IFRS adoption argue that a single globally accepted high quality accounting standard has the potential to improve the comparability and transparency of financial information across borders (Tarca, 2012), foster cross border investments (Lawrence et al., 2012) and reduce financial statement preparation costs. They further argue that when the standards are applied rigorously and consistently, investors and other stakeholders will have higher quality information and can make better decisions thereby reducing the overall cost of capital (Diamond and Verrecchia, 1991; Baiman and Verrecchia, 1996; Leuz and Wysocki, 2007; Easley and O'Hara, 2004 and Barth, Landsman and Williams, 2006).

Opponents of IFRS adoption however, countered that a single set of accounting standards might not accommodate the differing political, economic, social and cultural features of other jurisdictions. Ball and Brown (2006) argue that it is unclear if investors benefit simply from IFRS adoption. They argued that the potential IFRS adoption benefit will simply be wiped out by the differential or tax implementation.

The major thrust of this research has been to examine the impact of the adoption and implementation of IFRS on the financial statements of Nigerian listed Oil and Gas companies. The primary objective is to make contribution to existing literature and body of academic knowledge regarding the readiness of African countries to embrace and adopt a single set of accounting standards in the preparation and presentation of their financial statements. The study intends to contribute to the ongoing debate between the proponents and opponents of IFRS adoption in terms of increased comparability, transparency, and quality of the financial statements.

Based on these objectives, this study investigated the impact of the adoption and implementation of IFRS on the Key Performance Indicators (KPIs) of Oil and Gas companies and the impact of the adoption of IFRS on the Exploration and Evaluation (E&E) expenditures of listed Oil and Gas companies. The study further investigated the impact of the adoption of IFRS on the provision for decommissioning of Oil and Gas installations and environmental rehabilitation expenditures, the impact of the adoption of IFRS on the average daily Crude Oil production cost per barrel of Oil and Gas companies and the impact of the adoption of IFRS on the contractual relationships between Oil and Gas Companies and Nigerian Government in terms of Joint Ventures (JVs) and Production Sharing Contracts (PSCs) as it relates to Taxes, Royalties, bonuses and Profit Oil Split. The study finally examines the impact of the transition from GAAP to IFRS on the ease of preparation and presentation of IFRS based financial statements compared to GAAP based financial statements, ease of audit of the financial statements and ease of comparison of the financial statements among competitors across the Oil and Gas sector.

Although extensive research has been carried out on the impact of the adoption of IFRS on the financial statements of listed entities in various jurisdictions, no single study

exists which adequately examines the impact and implications of the adoption of IFRS on the accounting numbers, financial ratios and industry specific performance measures of Oil and Gas companies. Moreover, to my knowledge this is the first empirical study to investigate the relationships between Oil and Gas companies and the host Governments in terms JVs and PSCs as it relates to taxes, royalties and profit Oil split. In addition, no research has been found that empirically examined the impact of the adoption of IFRS on the E&E costs of Oil and Gas companies, the provision for decommissioning and environmental rehabilitation expenditures of Oil and Gas companies and the impact of the adoption of IFRS on the average daily production cost of crude oil per barrel in Nigeria and other African countries.

This research is therefore making a novel contribution to academic literature and body of academic knowledge. The study provides empirical views on the scepticisms of IFRS adoption by African countries and dispels the presumptions that African countries are not ready for the challenges of IFRS adoption. The study further confirms the views and beliefs of policy makers in the African Oil and Gas sector regarding the potential benefits of IFRS adoption by listed entities in the African continent. Findings from this study confirm previous findings on the impact of IFRS adoption on the accounting numbers and financial ratios of listed entities. The results are significant in three aspects; first, it is the first empirical research to investigate the impact of the adoption of IFRS on the financial statements of listed Oil and Gas companies in Africa. It will therefore provide guidance to policy makers, Oil and Gas company executives, financial analysts, investors and other stakeholders in the Oil and Gas sector in Africa on decision making regarding investments, cost classification and allocation and strategies on enhanced profitability. Secondly, the results will provide the policy makers with an impact assessment of the introduction of the policy in the African continent. It is the believe of this research that the results from investigating the Oil and Gas sector would provide a good guide on the implication of the policy on a continental scale.

Finally, the results will provide African Governments with an insight on the trends of Crude Oil production costs which will serve as a guide in budgetary allocation and revenue management.

7.2: Conclusions about the Research Issues

The specific implications of IFRS adoption and implementation on key performance variables of Oil and Gas listed entities are discussed as follows.

7.2.1: Exploration and Evaluation Expenditures:

Exploration and Evaluation (E&E) expenditures are the expenditures incurred in connection with exploitation for and evaluation of hydrocarbon resources before the technical feasibility and commercial viability of extracting these resources are demonstrable (PwC, 2010). IFRS 6: *exploration for and evaluation of mineral resources* is the main standard that sets out the requirements and disclosures to be applied when accounting for the exploration and evaluation expenditures within the extractive sector. IFRS 6 requires Oil and Gas entities to asses all Oil and Gas assets for impairment when facts and circumstances suggest that the carrying amount of these assets may exceed their recoverable amount. When the carrying amount exceeds the recoverable amount, Oil and Gas entities are required to measure, present and disclose the impairment loss in accordance with IAS 36*: Impairment of assets*. IFRS 6 is however a temporary standard issued by the IASB and is limited in scope. The standard only gives guidance in the recognition, measurement and classification of Oil and Gas assets in the exploration and evaluation phases of Oil and Gas production. It does not provide guidance to Oil and Gas companies on how to account for costs incurred beyond the E&E phase of Oil and Gas production. In Nigeria, SAS 14: *Accounting in the Oil and Gas sector (Upstream Operations)* and SAS 17: *Accounting in the Oil and Gas sector (Downstream Operations)* are

the standards that provide equivalent guidance to IFRS 6. These standards however, provide guidance on the recognition, measurement and classification of Oil and Gas assets in the exploration, development and production phases of Oil and Gas production. Both IFRS and Nigerian GAAP however permit Oil and Gas companies to apply the Full Cost (FC) accounting method or Successful Effort (SE) accounting method to account for their exploration and evaluation costs. Large Oil and Gas companies mostly favour the SE accounting method (Baker, 1976; Al-Jabr & Spear, 2004) where all costs of unsuccessful exploration operations are expensed in the P&L while costs of successful exploration are capitalised as part of the property, plant and equipment (PPE). Small Oil and Gas companies however, favour the FC accounting method where all costs of exploration and evaluation are capitalised irrespective of whether the operation will lead to the discovery of commercial quantities of hydrocarbon resources or not.

Findings from this research adds to the body of knowledge by revealing the deficiencies of IFRS 6 and its failure to provide specific guidance to extractive sector companies on how to account for their development and production costs. These entities are left with the only option of continuing to use their existing standards, as such taking advantage of these deficiencies to kink their financial reports thereby misleading potential investors and other stakeholders.

This study also shows that large Oil and Gas favour the application of the SE accounting method compared to the FC method in the recognition, measurement and classification of their E&E assets. This assertion is consistent with ICAEW report of 2007 (ICAEW, 2007) on the implementation of IFRS by EU listed firms which shows that the application of IFRS 6 encourages Oil and Gas companies in the EU to shift from FC accounting method to SE accounting method. Failure of IASB to issue strict guidelines on the

application of either the FC or SE accounting methods by Oil and Gas companies provides the companies with flexibility of choosing either method. These companies are rational and will only choose the accounting method that is more favourable to them in terms of low tax remittances and high net worth.

Results of the secondary data statistical analyses reveal that the E&E expenditures of Oil and Gas companies in Nigeria and other African countries increased significantly after the adoption of IFRS. The null hypotheses (H_{01} - H_{04}) regarding the effect of IFRS adoption on the E&E expenditures of Oil and Gas companies were rejected based on the results of the statistical analysis.

7.2.2: Provision for Decommissioning Expenditures

Decommissioning is the act of dismantling, removal or disassembling of redundant Oil and Gas installations (rigs, wells, pipes, storage tanks etc.) after the completion of exploration and production activities or when it has been established that commercially producible quantities of Oil and Gas will not be available even under enhanced exploration methods. Oil and Gas companies are legally required to decommission their Oil and Gas installations according to Article 60(3) of United Nations Convention on the Law of the Sea (UNCLOS, 1982), which came into force in 1992, the International Maritime Organisation (IMO) guidelines of 1989 and the Oslo and Paris Convention (OSPAR, 1999) for the Protection of the Marine Environment of the North East Atlantic.

Nigerian standard SAS 23: *Provision, contingent liabilities and contingent assets* requires Oil and Gas companies to make provision for the environmental restoration and abandonment costs of their offshore installations less the estimated salvage value of the equipment based on the best available estimate. IFRIC 1: *Changes in the existing*

decommissioning, restoration and similar liabilities under the IFRS however, requires Oil and Gas companies to make provision for their future decommissioning costs as the 'present value' of the future costs of decommissioning of their storage tank farms and other major Oil and Gas installations capitalised as part of the cost of the items and depreciated prospectively over the remaining life of the item to which they relate. Results of the secondary data quantitative analyses reveal that there was no significant difference between the provision for decommissioning and environmental rehabilitation expenditures of Oil and Gas companies and other African countries after the transition from GAAP to IFRS. As such, the developed null hypothesis (H_{05} - H_{08}) regarding the impact of the adoption and implementation of IFRS on the provision for decommissioning and environmental rehabilitation expenditures of Oil and Gas Companies were accepted. This result will add to our understanding that the provisions of IFRIC 1, IAS 37 and SAS 23 in terms of decommissioning expenditures provide similar guidance. Therefore a switch to either standard would not significantly affect the provision for decommissioning of oil and Gas assets and the overall financial statements of Oil and Gas companies.

7.2.3: Average Daily Crude Oil Production Cost per Barrel

The total cost of producing a barrel of Crude Oil consists of the lifting and finding costs. These costs are also referred to as upstream costs. The United States Energy Information Administration Report of 2013 shows that the average cost to produce a barrel of Crude Oil in the US was $40, $50 in Canada, $25 in Venezuela, $40 in Angola, $50 in Russia, over $70 in Brazil and about $10 in Saudi Arabia (EIA, 2013; CNBC Report, 2015).

Results from the analysis reveal that the average cost of producing a barrel of Crude Oil in Nigeria was $23.73 before and $29.73 after the adoption and implementation of IFRS. Similarly the mean cost of crude Oil production/barrel in Africa was $34.85 before and

$43.95/barrel after the adoption of IFRS. This signifies that the adoption of and implementation of IFRS has a significant impact on the cost of Crude Oil production. This result is a distinct contribution to literature and body of knowledge and provides a guide to policy makers, investors, analysts and O&G companies in decision and policy making. This research has identified three main standards that played a significant role in the increase in the cost of Crude Oil production. Standards like IFRS 6: *property, plant and equipment which* provide that an Oil and Gas entity to assess for impairment when facts and circumstances suggest that the impairment exists (PwC, 2011). IAS 36: *Impairment* which provides that the carrying value of an asset should not be more than their recoverable amount. If an asset is carried at a value more than its recoverable amount through use or sale of the asset, the asset is said to be impaired. IAS 36: *Impairment of assets* requires an entity to recognise an impairment loss as an expense in the profit and loss account which is the excess of the carrying amount over the recoverable amount. IAS 36 does not have an equivalent under the NG-GAAP, however guidance is provided by SAS 9: *depreciation* which requires companies to conduct annual be depreciation of their assets on a straight line basis. IAS 36: *intangible asset is* also recognised as having influenced the increase in the production cost of Crude Oil. This standard does not have an equivalent under the NG-GAAP, but SAS 22: *Research and development* was the closest equivalent to this standard. Finally the application of guidance provided by IFRS 6: *exploration for and evaluation of mineral resources* instead of SAS 14: *Accounting in the Oil Gas sector (Upstream Operation)* and SAS 17: *Accounting in the Oil and Gas sector (Downstream Operation)* influenced the increase in the ADPC/barrel of Crude Oil. Results of the analyses reveal statistically significant differences between the mean and median GAAP and IFRS values of average daily crude Oil production costs per barrel of oil and Gas companies. It was based on this result that the research question 3 was

addressed and the developed hypotheses (H_{09} - H_{012}) were rejected and the alternative hypotheses (H_{a9} - H_{a12}) accepted.

7.2.4: Other Accounting Numbers and Financial Ratios

More recently, literature has emerged that offers contradictory findings about the impact of the adoption and implementation of IFRS on the accounting numbers and financial ratios of listed companies. This study is an industry specific research that contributes to academic literature and body of knowledge on the impact of the adoption and implementation of IFRS on the financial statements of listed Oil and Gas companies. The contributions from this research have provided the long awaited answers to the implications of the adoption of IFRS on the accounting numbers and financial ratios of extractive sector listed entities.

Strong evidence of statistically significant difference between the GAAP and IFRS values of total assets and equity of Oil and Gas companies has emerged after the adoption and implementation of IFRS. The cause these differences was attributed to the differences in the classification, recognition and measurement of Oil and Gas assets in terms of property, plant and equipment (PPE). Under GAAP all items of PPE are measured at their initial (historical) cost as provided by SAS 3: *Accounting for Property, Plant and Equipment*, this standard does not allow the upward adjustment of items of PPE. IAS 16: *Property, Plant and Equipment* under IFRS however allow the upward adjustment of PPE and all items of PPE are measured at their fair value against the historical cost under the GAAP. These differences in classification and measurement are responsible for the significant differences in the values of PPE.

Studies from Hung and Subramanyan (2004) reported a significant increase in the mean values of total assets (TA) of German listed firms after the adoption of IFRS. Similar results of increase in TA were reported by Kabir (2010), Georgakopoulou et al., (2010) and

Pazarskis et al. (2011), on New Zealand listed firms and Greek listed firms respectively. More recently, Blanchette et al. (2013) reported a statistically significant increase in the TA of Canadian listed entities after the adoption of IFRS. Consistent with these studies, results from this PhD's empirical analysis reveal a statistically significant increase in the mean values of TA of listed Oil and Gas companies after the adoption and implementation of IFRS. Contrary to these results however, Kubickova et al (2012) did not find any significant difference between the financial ratio calculated under Czech Accounting Standards (CAS) and IFRS. This result was based on the analysis of only 18 listed companies and therefore cannot be relied on because of smaller samples size.

The result of this PhD's empirical analysis also reveals a statistically significant increase in the inventory values of Oil and Gas companies after the adoption of IFRS. SAS 4: *On Stock* under GAAP and IAS 2: *Inventories* under the IFRS provide similar guidance in the recognition, measurement and classification of inventories. Both GAAP and IFRS require inventories to be carried at lower of costs and net realisable value and allow the first-in-first-out (FIFO) or weighted average method but IFRS explicitly prohibits the last-in-first-out (LIFO) method in determining the cost of inventories (PwC, 2011). Differences however exist in the classification of some inventory items of Oil and Gas companies. Extractive sector firms mostly maintain a store of spare parts and servicing equipment for their critical Plant and machinery equipment used in the refining and transportation of hydrocarbon products in order to avoid shortage which may jeopardize Crude Oil production. Nigerian GAAP, SAS 17: *Accounting in the petroleum industry (downstream activities)* requires the capitalisation of spare parts and standby equipment for use with specialized trucks and barges for the transportation of petroleum products as part of PPE and depreciated over the expected life of similar equipment in use (PwC, 2011). IAS 16: *property, plant and equipment* however, requires that spare parts and servicing equipment apart from major spare parts and

standby equipment are carried as inventory and recognised in the profit or loss as consumed. According to this standard, spare parts and standby equipment only qualify as items of PPE when an entity expects to use them for more than one period. The adoption of IAS 16: *property, plant and equipment* and IAS 2: *Inventories* required the reclassification of some of the spare parts, service equipment and standby equipment of Oil and Gas companies that were initially classified as PPE under SAS 17: *Accounting in the Oil and Gas sector (Downstream activities)* and SAS 4: *On Stock* to items of inventory as required by IAS 16: *property, plant and equipment*. Findings in our empirical analysis are consistent with results of Hung and Subramanyam (2004) and more recently Terzi et al. (2013) that reported an increase in the value of inventories of German and Turkish listed companies respectively after the adoption of IFRS. Contrarily however, Lantto & Sahlstrðm (2009) reported a decrease in the value of inventories of Finnish listed firms on transition from GAAP to IFRS. Our empirical analysis and result has contributed to literature and academic knowledge in highlighting the differences in the classification and measurement of inventories in the Oil and Gas sector under GAAP and IFRS as provided by SAS 4: *On Stock*, IAS 16: *property, plant and equipment and SAS 17: Accounting in the Oil and Gas Sector (Downstream activities)* and the impact of these differences in the values of inventories of Oil and Gas companies.

Previous studies have also demonstrated that a compulsory switch from GAAP to IFRS has a significant impact on the total liabilities (TL) of listed companies. Findings from this research is consistent with results from Stergios et al. (2005) that reported a significantly higher TL of Greek firms under IAS compared to Greek GAAP. A similar result was reported by Kabir, (2010) on New Zealand listed after the transition from New Zealand GAAP to IFRS. Similarly, Callao et al. (2007); Gaston et al. (2007); Terzi (2013); Georgakopoulou et al. (2010) and Pazarskis et al. (2011) all reported that a transition from GAAP to IFRS has a

statistically significant effect on TL of listed companies. This research hypothesised that IFRS recognises more assets and liability items on the balance sheet and carries them at higher value than the NG-GAAP. The increase in liabilities indicates that the level of exposure in terms of account payables and long term loans has significantly increased after IFRS adoption which is an indication of increased investment in the E&E of hydrocarbon resources and the desire for growth. The arguments put forward in the literature responsible for the increase in TL is consistent with our argument regarding the fair value orientation of IFRS as against the prudence and income smoothing principle associated with GAAP standards.

Numerous studies have argued that the adoption and implementation of IFRS has a significant impact on the equity values of listed companies. Results of the analysis from this study are in good agreement with the results of Lantto and Sahlstrom, 2009; Stergios et al.; 2005; Terzi et al.; 2013; Georgakopoulou et al.; 2010 and Pazarskis et al., 2011. These studies reported a significant increase in equity of listed companies on transition from GAAP to IFRS. Consistent with our findings, Lantto and Sahlstrom (2009) argued that IAS 19: *Employee benefits* was responsible for the increase in equity. In Nigeria, SAS 8: *employment retirement benefit* under GAAP encourages cash settled share based payment to employees upon retirement and the retirement benefit is treated as an expense while IAS 19: *employee benefits* under the IFRS encourages equity settled share based payment where these benefits are recognised as assets over the vesting period and credited to equity. These differences in classification could potentially be responsible for the significant increase in the book value of equity of Oil and Gas companies after IFRS adoption. This research has contributed to literature and body of knowledge by revealing the impact of the adoption and implementation of IFRS 3: *Business combination*, IAS 16: *Property, Plant and Equipment* that emphasizes the fair value principle against the historical concept encouraged by GAAP. IAS 36:

impairment and IAS 38: *Intangible assets* are the substantive standards responsible for the significant increase in equity values of Oil and Gas companies.

In terms of Goss Profit Margin (GPM), a number of researchers have reported a strong correlation between the transition from GAAP to IFRS and the increase in GPM of listed companies. Consistent with some of these reports, the results from our analysis indicate that GPM of listed Oil and Gas companies increased significantly. This increase is also attributed to the adoption and implementation of IFRS 3: *Business combination* and IAS 16: *property, plant and equipment* which require the reclassification of PPE items to inventories. This reclassification decreased the amount of accumulated depreciation and increased the amount of retained earnings by the corresponding amount of the depreciation. The increased in the amount of retained earnings resulted in the increase in the amount of GPM accordingly. Results from Hung and Subramanyan, 2004; Terzi, 2013 are consistent with our findings and argued that the significant increase in GPM of German and Turkish listed companies is the result of the adoption of IFRS 3: *Business combination* and IAS 16: *property, plant and equipment*. Contrarily however, Stergious et al. (2005) and more recently Dimitrious et al. (2013) reported that the transition from Greek GAAP to IFRS did not significantly change the GPM of Greek listed companies.

Generally, results from secondary data statistical analyses show that most of the accounting numbers and financial ratios of Oil and Gas companies changed significantly as a result of the transition from GAAP to IFRS. These results therefore provide sufficient evidence to justify the rejection of null hypotheses (H_{013} - H_{016}) and the acceptance of the alternative hypotheses (H_{a13} - H_{a16}), that there are statistically significant differences between the mean and median values of KPIs computed under GAAP and the values computed after the adoption and implementation of IFRS.

7.2.5: Contractual Relationships (JVs and PSCs)

Oil and Gas exploration and production companies and Nigerian Government through the Nigerian National Petroleum Corporation (NNPC) engage in a contractual arrangement to exploit and produce Oil and Gas resources. The objective of the Nigerian Government is to maximise wealth from its natural resources by encouraging appropriate level of exploration and production of Oil and Gas resources. While the objective of the Oil and Gas companies is to build equity and maximise wealth by finding and producing Oil and Gas reserves at the lowest possible cost and highest possible profit margin (World Bank, 2014). The most common types of contractual arrangements are the Joint Ventures (JV) and the Production Sharing Contracts (PSCs). There are presently seven JV agreements between Nigerian Government and International Oil Companies (IOCs), six of these JVs are responsible for about 97% of Nigeria's Crude Oil production. The IOCs provides the necessary finance and technical skills required to explore and produce the Oil and Gas resources and bear all the risks associated with the project. On successful discovery of commercial quantities of Oil and Gas resources, IOCs are required to pay a royalty on the total Crude Oil produced to the Nigerian Government after which the IOC is entitled to a predetermined percentage of the production from which it may recover its costs known as Cost Oil. When Royalty and Cost Oil have been deducted from the total production, the remaining Crude Oil, known as Profit Oil is shared between the IOC and Nigerian Government in accordance with a predetermined sharing ratio in the terms of the contract.

Finally, the IOC is required to pay tax on its share of profit oil to the Federal Government. In Nigeria, SAS 29: *Interest in Joint ventures* prescribes how joint assets, liabilities and income and expenses should be accounted for in the financial statements of venturers and investors. Whereas IFRS 11: *Joint arrangements* and IFRS 12: *Disclosure of*

interest in other entities, are the standards that provide guidance in respect of the contractual relationships between Oil and Gas companies and the host Governments.

Results from the questionnaire analysis reveal that generally, the adoption and implementation of IFRS has a positive impact on the contractual relationships between Oil and Gas companies and Nigerian Government. The study further investigated the impact of the adoption and implementation of IFRS on Taxes, Royalties and Profit Oil Split. The Nigerian Extractive Sector Transparency Initiative (NEITI, 2013) Oil sector audit report (2009 – 2011) reveals that the actual amount of crude Oil produced in Nigeria is not known and that Oil and Gas companies pay taxes and royalties through an unregulated self-assessment process. This process led to beneficial interpretations of taxes by Oil and Gas companies resulting in reduced revenue for Nigerian Government both from Petroleum Profit Tax (PPT), bonus and royalty payments. This research reveals that Oil and Gas companies are restricted by the "Non-Circumvention and Non-Disclosure clause" in their contractual agreement with the Nigerian Government in disclosing the amount of tax remittances, royalty payments and profit Oil Split between them and Nigerian Government. The important issue that emerged from this result is that this research could not ascertain the exact impact of the adoption of IFRS on the relationship between Nigerian Government and the IOCs in terms of JVs and PSCs as it relates to taxes, royalties and POS. However, one of the main clauses of the Nigerian Petroleum Industry Bill (PIB) that has just been passed into law by the country's National Assembly is a recommendation to expunge and void the contract confidentiality clause (IAT 173) for information on upstream tax, royalties, fees and bonus payments in the contractual agreements. Essentially, this will give way for transparency and accountability in the Oil and Gas sector.

The anticipated results from my investigation is that the adoption and implementation of IFRS 11: *Joint arrangements* and IFRS 12: *Disclosure of interest in other entities* would negatively impact on the relationships between IOCs and Nigerian Government because of the fair value orientation of IFRS which makes it more transparent and the guidance provided by these standards would compel Oil and Gas companies to disclose the details of all remittances and payments in terms of commissions, taxes, royalties and any other form of remittance in their financial statements.

Although extensive research has been carried out on the impact of the adoption of IFRS on the financial statements of listed companies, to my knowledge, this is the first empirical research to investigate the impact of the adoption of IFRS on the contractual relationships between IOCs and the host Government in terms of JVs and PSCs as it relates to taxes, royalties, bonuses and profit oil split. It is a novel contribution to literature and body of knowledge especially highlighting the existence of the Non-Circumvention and Non-Disclosure clause in the agreement that prevented IOCs and the Nigerian Government in revealing the amount of taxes, royalties, bonuses and profit oil split between the two parties.

7.3: Ethical Consideration, Validity and Reliability

The approach to empirical research for this study was one of a positivist's approaches where primary and secondary research designs were adopted to provide descriptive, interpretive and empirical results. By employing the quantitative mode of enquiry, this PhD research study attempts illustrate the impact and implications of the adoption and implementation of IFRS on the accounting numbers and financial ratios of Oil and Gas companies. The research also attempts to illuminate the thoughts and views of Chief Executive Officers (CEOs) of Oil and Gas companies, policy makers, Professional Accountants and other key stakeholders in the adoption and implementation of IFRS in

Nigeria on the impact and implications of the adoption and implementation of IFRS on the financial statements of listed Oil and Gas companies.

Due and necessary ethical considerations were recognised in the design and construction of the questionnaires before being administered to the intended participants. In the questionnaire administration process, all the necessary ethical considerations in safeguarding the anonymity of participants, consent of the participants and confidentiality of sensitive information were recognised and respected. No names of individuals, groups or corporate bodies that participated in this research were revealed under any circumstances. All respondents were addressed as CASE “A”; CASE “B” etc. as appropriate in the course of this research.

Consequently, a total of 100 questionnaires were administered to the key stakeholders out of which a response rate of 58% was obtained. A review of academic literature on the adequacy of response rate in social science research reveals that the average response rate for studies that utilise data collected from individuals was 52.7% with a standard deviation of 20.4% (Baruch and Holtom, 2008).

In order to ascertain the validity and reliability of the study instrument a reliability test of the questionnaires was conducted using the SPSS. Result of the analysis reveals a reliability coefficient (Cronbach's Alpha) of 0.719 (71.9%). Literature reveals that a standardized alpha reliability coefficient (∞) of 0.70 or higher is considered “acceptable" in most social science research situations for the survey to have strong internal validity (Nunally, 1978; Cohen et al., 1988). The Cronbach's Alpha of 71.9% was therefore adequate to provide valid and reliable inferences.

The data collected from administering the questionnaires was analysed using the SPSS. Results from the analysis reveal that IFRS based financial statements are of higher quality compared to GAAP based financial statements in terms of earnings management (income smoothing), timely loss recognition and value relevance of accounting information. The results thus obtained are compatible with findings of Barth et al. (2005, 2008), Paananen, (2008) and Lin et al. (2012) that the mandatory adoption of IFRS has resulted in better quality of financial reports compared to the quality of financial reports under GAAP. Similar results were reported by Ballas et al, (2010) on Greek listed firms, Agyei-Mensah, (2013) on Ghanaian listed firms and Muller (2014) on companies listed on London, Paris and Frankfurt Stock Exchanges suggesting higher quality disclosure and transparency of financial statements. In contrast to these results however, Athianos et al. 2005; Hung and Subramanyan, 2007; Lin, 2008; Clarkson et al. 2009 and Hougue et al. 2010 reported that the adoption of IFRS does not necessarily result in increased quality of financial reports of listed firms as envisaged. Outa (2011) reported that the quality of financial reports of Kenyan listed entities before IFRS adoption remained almost the same with the quality of financial reports after IFRS adoption.

Literature has shown that different researchers view quality of financial statements from different perspectives. Those that view quality from the perspectives of low earnings management in terms of income smoothing, high value relevance of accounting information and timely recognition of losses like Barth, et al. (2005, 2008), Paananen, (2008), Curto & Morais (2008), Lin et al. (2012) and researchers that views quality from the context of comparability, transparency and accuracy of accounting information like Daske et al. (2008), Lee et al. (2013). Other researchers however, argue that quality of financial statements should not be hinged on the adoption of IFRS alone rather on the country's legal and political

system, quality of the standards, the country's regulatory and enforcement framework and financial reporting incentives.

It is beyond the scope of this research however, to analyse the accounting quality variables as presented by Bath et al. (2008), Paananen, (2008) and Lin et al. (2012). In conformity with results from other studies, it can reliably be concluded that the adoption and implementation of IFRS has improved the quality of financial statements of Nigerian listed Oil and Gas companies based on the findings from the administered questionnaires. The results from this PhD research analysis also reveal that IFRS based financial statements are easier to prepare and present to management and other stakeholders in the Oil and Gas sector. IFRS based financial statements are also easier to compare among competitors across the Oil and Gas sector but slightly more difficult to audit compared to GAAP based financial statements.

7.4: Implications for Theory

The theoretical underpinnings of this research were based on three major theories. The Positive Accounting Theory developed by Watts and Zimmerman (1978, 1979 and 1990), the Decision Usefulness Theory and the Power-Capture Theory, which encapsulates Luke's (1974) Theory of Power and Mitnick's (1980) Theory of Regulatory Capture developed by Laffont and Tirole (1988). These theories and how they relate to this study are briefly discussed as follows.

7.4.1: Positive Accounting Theory (PAT)

Positive Accounting Theory (PAT) was developed by Watts and Zimmerman (1978, 1979 and 1990). The theory is primarily concerned with predicting such actions as the choice of accounting policies by firm managers and how managers respond to changes in accounting

standards and the benefits associated with these changes (Watts and Zimmerman, 1990). PAT fundamentally explains the shift in accounting policy which is part of the overall corporate governance practice in the Oil and Gas sector. The success of PAT depends on the institutional environment, legal and regulatory frameworks as well as the degree of competition in the Oil and Gas sector. In the contractual arrangements between Oil and Gas companies and the Nigerian Government, the firms aim to maximise their revenue and minimise their costs while the Nigerian Government aims encourage the Oil and Gas companies to explore more hydrocarbon resources in order to maximise wealth from its natural resources. PAT argues that firms are only keen in adopting the accounting standards that are flexible and could potentially reduce their contracting costs. It is a well-known fact that extractive industries are a powerful force with many of the major companies like ExxonMobil, Royal Dutch Shell, BP, Total etc. as being more powerful and in some cases richer than the states where they operate (Stevens, 2013; Cortese et al., 2009). The theoretical implication is that Oil and Gas companies are very rigid towards the development of a substantive standard in the Oil and Gas sector that would provide guidance in the recognition, classification and measurement of expenditures, revenues and assets of Oil and Gas companies. The companies in the extractive sector would rather maintain their existing GAAP or at the worst case adopt the IFRS 6: *exploration for and evaluation of mineral resources.* However, the flexibility offered by IFRS to choose either FC or SE accounting method opens up the possibility of opportunistic behaviour to the Oil and Gas companies (Stevens, 2013). These are the reasons why companies in the extractive sector are exerting undue pressure on the IASB to maintain the IFRS 6 because of its flexibility. It is pertinent to note that this standard is a temporary standard and only provides guidance in the E&E phase of Oil and Gas production.

This research has made a positive and unique contribution to academic literature and body of knowledge by explaining the resistance of Oil and Gas companies to the moves by IASB in developing a substantive standard for the extractive sector.

7.4.2: Decision Usefulness Theory

Decision usefulness theory is one of the major accounting theories that attempts to describe accounting as the process of providing the relevant information to the relevant decision makers (Dandago, 2013). The general objective of the financial statement as described in IAS 1: *Presentation of Financial statements* is to provide information about the financial position, financial performance and cash flows of an entity that is useful to a wide range of users in making economic decisions. The IASB conceptual framework explicitly states that "The objective of general purpose external financial reporting is to provide information that is useful to present and potential investors, creditors and others in making investment, credit and similar resource allocation decisions (IASB, 2008 p. 18)." Decision usefulness theory prescribes that, the decision to adopt a particular accounting policy hedges on the management and other policy makers rather than investors and other shareholders (Buys, 2010). The belief is that management and other policy makers are more informed about the potential implications of accounting policy changes than the investors and hence should be responsible for taking these decisions. In line with this theory, the decision to adopt IFRS in Nigeria was taken by the Federal Executive Council of Nigeria in the best interest of all listed companies, the shareholders and the Nigerian economy in general. The Nigerian Accounting Standards Board (NASB) now the Financial Reporting Council of Nigeria (FRCN) established by the FRCN Act 2011 was responsible for ensuring compliance with the adoption of IFRS by all listed companies.

7.4.3: Power-Capture Theory

The relevance of power/capture theory to this research was derived from Luke's (1974) theory of power that recognises the potential for exerting power on regulatory bodies (IASB) by the Oil and Gas companies and Mitnick's (1980) theory of regulatory capture which was specifically developed to examine the relationship between the regulatory bodies and the regulated organisations (extractive sector companies). The theory was based on the argument that the extractive sector entities have great influence on the IASB and have captured the international accounting setting process by securing a standard dedicated exclusively to the extractive sector. In this way the extractive sector firms are reinforcing their influence on the IASB in maintaining the flexibility of extractive industries accounting (Cortese, et al., 2010). The extractive sector industries through lobbying, exercise great influence on the IASB and over time established a strong bond with this body by providing financial, technical and professional assistance in the development of international accounting standards (Cortese, et al., 2010). The support provided to the IASB by the extractive sector industries has resulted to a dependency relationship where both parties benefit each other.

The results obtained from this PhD analysis reinforce the belief that IASB is not keen to issue a substantive standard for the extractive sector industries (Cortese et al., 2010). IASB prefers to maintain the status quo of allowing extractive sector companies to continue with the guidance provided by IFRS 6: *exploration for and evaluation of mineral resources* and the flexibility of using either the FC or SE accounting methods to account for their E&E expenditures despite the fact that this is an interim standard and does not provide guidance beyond the E&E phase of Oil and Gas exploration and production.

The third dimension of Luke's (1974) theory of power recognised the potential for the power that may be exercised by shaping perceptions, cognitions and preferences. For example, the Nigerian Petroleum Industry Bill (PIB) was designed to reform the Nigerian Oil and Gas sector and provide transparency and accountability in all aspect of Oil and Gas exploration and production in Nigeria. Some of the contentious clauses in this Bill are the potential renegotiation of JVs and PSCs agreements with IOCs, changes in taxes and royalty structures, restructuring of the NNPC, mandatory contribution of 10% of monthly net profits to the Petroleum Host Community Fund and to expunge the confidentiality clause (IAT 173) for information on upstream tax, royalties, fees and bonus payments in the contractual agreements so that Oil and Gas firms would be more transparent and be forced to publish all payments due to the Nigerian Government in terms of taxes, bonuses and royalty (EIA, 2013). Luke's (1974) theory of power could be linked with the inability of the Nigerian National House of Assembly to pass the PIB into law over a year since it was brought before it. There is no disputing the ability of the IOCs to exert insidious power and influence against the passage of this bill because of its perceived negative consequences on revenues of the IOCs. Mitnick's (1980) theory of regulatory capture recognised the existence of powerful interest groups, in this case, the IOCs that exercise undue pressure on Nigerian legislatures and other Government officials against the implementation of government policies that could be detrimental to their operations.

Therefore this research is making a significant contribution to literature and academic knowledge by filling the theoretical void in respect of the power tussle between IOCs and the Nigerian Government.

7.5: Implications for Policy and Practice

One of the novel contributions of this research is to highlight the need for policy adjustments in terms of expenditure and prudent allocation of resources in the Oil and Gas sector. The subsequent changes on the accounting numbers and financial ratios of Oil and Gas companies as result of changes in accounting policy, makes way for extractive sector policy changes and adjustments in order to cushion the effect of the accounting policy changes on the financial statements. The accounting policy changes will also necessitate adjustments in budgetary and other financial provisions. As highlighted in the previous sections, the adoption of some IFRS standards has a significant impact on the E&E expenditures, decommissioning expenditures as well as the average daily production cost (ADPC) of Crude Oil/barrel. No policy adjustment is required in terms of the provision for decommissioning and environment rehabilitation expenditures because of the similarity in guidance and insignificant differences between IFRIC 1: *Changes in the existing decommissioning, restoration and similar liabilities, IAS 37: Provision, contingent liabilities and contingent assets* and SAS 23: *Provision, contingent liabilities and contingent assets.* However, serious policy overhauls are required in terms of E&E and the ADPC of Crude Oil that increased significantly after IFRS adoption. From the results of this research, it is possible to conclude that more Oil and Gas companies will shift their accounting policy choice to the SE accounting method against the FC accounting method because of its flexibility in the capitalising or expensing the costs of unsuccessful exploration operation. It is also possible to conclude that IFRS 6: E*xploration for and evaluation of mineral resources* will remain in place for quite some time despite its drawbacks because it is a policy favoured by firms in the extractive sector.

The main purpose of this research project was to develop an understanding of the implication of accounting policy changes on the financial statements of Oil and Gas companies. The findings of this research are quite convincing and add to the body knowledge and academic literature that accounting policy changes significantly affect the financial statements of Oil and Gas companies. Results from the study will provide guidance to policy makers, accounting regulatory bodies, professional accountants, financial analysts, Oil and Gas sector personnel and other stakeholders in the accounting profession and Oil and Gas sector in the design and execution of appropriate accounting policies that would provide a platform for transparency, credibility and efficient utilisation and allocation of Oil and Gas resources in Nigeria and other African countries. Results from this research also identified the need for the training and retraining of personnel in the accounting and Oil and Gas sector on the guidance and application of accounting standards in the preparation of financial statements. Most of the auditors that responded to our questionnaires reported that the auditing of IFRS financial statements were more difficult compared to the audit of GAAP based financial statements.

7.6: Implications for Methodology

The approach to empirical research adopted for this study was one of the statistical analyses of primary and secondary data. The research data in this thesis was drawn from two main sources. The data for the secondary statistical analysis was extracted from the annual audited financial statements of 47 listed Oil and Gas companies from 7 African countries. While the data for the primary statistical analysis was obtained through the administering of questionnaires to Chief Executive Officers (CEOs) of oil and Gas companies, Finance Directors/accountants, staff of accounting governing bodies, professional accountants, financial analysis and other stakeholders in the accounting and Oil and Gas sectors. The

primary data collection instrument was subjected to a reliability analysis in order to ascertain the reliability of the survey instrument. While the collected secondary data was first tested for normality by conducting the Kolmogorov-Smirnov and Shapiro-Wilks tests for normality. The aim was to determine whether the data was normally distributed in order to adopt the appropriate statistical analysis methods. Results of our normality tests reveal that the collected quantitative data was not normally distributed. However in order to conduct a more robust research and for comparison purposes, both parametric analysis for normally distributed data and non-parametric analyses for non-normally distributed data were conducted where the mean and median values of the accounting numbers and financial ratios were computed and analysed and the significance of their differences compared.

The systematic approach to data collection and analysis is consistent with previous studies that investigated the impact of the adoption of IFRs on the financial statements of listed firms. However, most of the previous studies only conducted either the parametric or non-parametric analysis while in this research; a pragmatic approach was applied where both analyses were conducted for the robustness of the research and comparison purposes. This research is making a substantial contribution to literature and body of knowledge by providing a sequential and systematic approach to methodology in empirical research. Moreover this research has justified the significance of conducting primary and secondary data statistical analyses concurrently and its implications on arriving at valid and reliable results and inferences. The main purpose of this research is to develop an understanding of the implications of the transition from GAAP to IFRS and to establish the extent of the impact of this transition on the financial statements of listed Oil and Gas companies in Nigeria. Based on the complexity of this research, the collection and analyses of both secondary data and primary data was deemed more appropriate to effectively address the formulated research questions. By conducting the primary mode of enquiry, the study

attempts to illuminate the views of the various stakeholders in the adoption and implementation of IFRS on their experiences and reservations regarding the application of IFRS in the preparation of financial statements. It enables the researcher to find out how the preparers and auditors of Oil and Gas financial statements perceived the introduction of IFRS and its application in the preparation of financial statements.

7.7: Implications for Further Research

In the last decade, the impact of the adoption and implementation of IFRS on the financial statements listed entities in various jurisdictions has attracted much attention from researchers around the world. The IASB continues to develop new and update the existing accounting standards in order to keep up with the challenges of globalisation. The IASB also continues to lure various jurisdictions around the world to adopt or converge their accounting standards in line with the IFRS.

Consultations have been going on between the IASB and extractive sector industries with a view to developing a substantive standard for the extractive sector to replace the existing *IFRS 6: exploration for evaluation of mineral resources* that has been identified as flawed in terms of its limitation to only the E&E phase of Crude Oil production. Future research on extractive sector firms will significantly be influenced by the new standard that will replace IFRS. Furthermore, the concept of impairment testing as required by *IAS 36: Impairment of assets* and the guidance on of this standard on impairment testing is still vague to majority of preparers and auditors of Oil and Gas company financial statements. It is still a subject of controversy as to who is responsible for conducting the impairment test between the preparers and auditors and when is it appropriate to conduct the test must be addressed.

The controversy surrounding the FC and SE accounting methods for the Oil and Gas companies could potentially influence future research on the Oil and Gas sector. The potential to streamline the two main accounting methods into a single accounting method is being considered by the IASB. The idea of big Oil and Gas companies applying the SE accounting method while small Oil and Gas companies to applying the FC accounting method when scrapped, could potentially affect future research in the Oil and Gas sector.

7.8: Research Contributions:

Although extensive research has been carried out on the impact of the transition from GAAP to IFRS, no single study exists which investigates the impact of the transition from GAAP to IFRS on the financial statements of listed Oil and Gas companies. This empirical research will therefore make a significant contribution to academic literature and body of academic knowledge by voiding the existing knowledge gap in the literature regarding the impact and implications of IFRS adoption on the financial statements of listed Oil and Gas companies. To my knowledge, this is the first empirical research to point out the effects of the adoption of IFRS on the Exploration and Evaluation expenditures of Oil and Gas companies, the impact of IFRS adoption on the average daily cost/barrel of Crude Oil production and the impact of IFRS adoption on the provision for decommissioning of Oil and Gas installations and environmental rehabilitation expenditures. It is also the first empirical research to investigate the impact of IFRS adoption on the relationships between Oil and Gas companies and the host governments in terms of JVs and PSCs.

Therefore, findings from this research will provide guidance to countries and Governments endowed with large deposits of hydrocarbon resources on designing economic policies that would maximise the country's wealth through the establishment of favourable contractual relationships with Oil and Gas exploration and production companies. It will also

assist these Governments in budget and budgetary planning and provision with regards to forecasts on the average cost per barrel of crude Oil production and the expenditures envisaged in respect of exploration for and evaluation of mineral resources. The findings will assist financial analysts, investors and potential investors in making informed investment decisions taking into cognisance the risky nature of the extractive sector, the uncertainty in the discovery of commercial quantities of hydrocarbon resources and of course the massive reward on discovery of commercial quantities of hydrocarbon resources.

Regulatory agencies and other accounting governing bodies will massively benefit from this research by monitoring and evaluating the impact of the adoption of IFRS and the effectiveness of the accounting standards on the accounting numbers and financial ratio of listed companies. Findings from this research will assist Oil and Gas companies in selecting the most appropriate accounting methods to apply (FC or SE) in accounting for their exploration and evaluation and other expenditures incurred in Oil and Gas exploration. Accountants, auditors and other professionals in the accounting and finance sector will benefit immensely from this research from the comparisons made on the GAAP and IFRS standards, their similarities, differences and their application to account for E&E expenditures, inventory valuation, impairment of Oil and Gas assets and when it is appropriate to conduct impairment tests. Researchers and other research enthusiasts will also benefit from this research by adopting and implementing the research methodology, the research design and the philosophical and theoretical frameworks used in this study in conducting similar studies either in the Oil and Gas sector or in other sectors. Oil and Gas companies will benefit from the findings of this research by improving their relationships with host nations in order to douse the existing tension and power tussle between Oil and Gas companies and their host Governments.

This research has also made series of recommendations that are expected to improve the accounting quality of Oil and Gas companies in Nigeria. The study recommended the training and retraining of accountants, auditors and other Oil and Gas and accounting sectors personnel in terms of Continuous Professional Development (CPD) in order to keep up with the phase with which the IASB is issuing and reviewing their existing IFRSs. Other recommendations of this research are the immediate implementation of the Nigerian Petroleum Industry Bill (PIB) that has just been passed into law by the National House of Assembly. This study has made recommendations to expunge the confidentiality clause (IAT 173) for information on upstream tax, royalties, fees and bonus payments in the contractual agreements so that Oil and Gas firms would be more transparent and be forced to publish all payments due to the Nigerian Government in terms of taxes, bonuses, royalties and Profit Oil Split.

This research was conducted within a four year period in compliance with the Abertay University policy on PhD research projects. The research was supported and part funded by the Petroleum Technology Development Fund (PTDF) of Nigeria.

7.9: Limitations and Recommendations:

The following limitations were identified in the course of this study and recommendations offered for future research based on the literature and findings.

7.9.1: Limitations

This research confirms previous findings and contributes to our understanding of the implication of accounting policy changes on the financial statements of listed Oil and Gas companies. Although the study did not find any major aberration from the previous studies, it did however substantiate most of the findings from the previous studies by collecting and analysing both primary and secondary data and presenting these data accordingly. However, a

number of limitations have been identified and acknowledged in relation to this research. For instance, most of the results from previous studies were based on data collected from over 50 listed companies; the results from this research were based on the analysis of 47 listed Oil and Gas companies. Out of these companies only 12 were Nigerian listed Oil and Gas companies and 35 from other African countries. Further research should take this into consideration and expand the sample size in order to arrive at a more reliable result.

The research did not take into account the 12.6% average general price inflation (CBN, 2015) in Nigeria during the 2009 - 2011 and 11.3% during the 2011 - 2014 study periods. These levels of inflation could have an impact on profitability, E&E expenditures and other key performance measures of the Oil and Gas companies. The study has however taken into consideration the currency fluctuations and its potential impact on accounting practices (FC vs SE) which may influence the reported figures on the accounts of Oil and Gas companies. An average Naira value of =N= 151/USD[21] for the period 2009 - 2011 and =N= 159/USD[22] for the period 2011 - 2014 as obtained from CBN (2015) were applied for the statistical analyses.

Another limitation identified is that the research was conducted on only the Oil and Gas sector in Nigeria and other African countries primarily because the Nigerian economy invariably depends on the Oil and Gas sector which provides about 95% of the country's foreign exchange receipts (NBS, 2013). Future research should be expanded to cover other sectors of the economy in Nigeria and other African countries in order to explore and compare the impact of the adoption of IFRS on the various sectors and the economy in general.

[21] 149+149+156/3=151
[22] 155+155+168/3=159

While this research study fully acknowledges the associated limitations, it is important to reiterate that these limitations were not significant enough to distort the empirical findings from the research. The limitations will only provide a guide and safeguards for future researchers.

7.9.2: Recommendations

Despite the tremendous achievements and the promising results of this research further work is required to establish the exact link between the individual accounting standards and the financial statement variables especially when a substantive accounting standard for the extractive sector has been issued by the IASB. However, based on the reviewed literature, the methodology and methods of conducting the research, the research findings, the theoretical and philosophical perspectives of the study, this research has made series of suggestions and recommendations for future research that would enable proper investigation of the relationships between a shift in accounting policy and the financial statements of Oil and Gas companies.

The main recommendations made by this research are the immediate issuance of a substantive standard for the Oil and Gas sector by the IASB to replace the ailing IFRS 6: *exploration for and evaluation of mineral resources* that is limited in scope and only provides guidance to Oil and Gas companies in the Exploration and Evaluation phase of Crude Oil production. The research also recommends that Oil and Gas companies be restricted to either the FC or SE accounting methods, as the flexibility currently offered by IASB to Oil and Gas companies in choosing either method is tantamount to bias and irregularities in the declaration and valuation of assets, liabilities, revenues and expenditures in the balance sheet and income statements respectively. Accounting regulatory bodies like the Financial

Reporting Council (FRC) in Nigeria should monitor the full adoption and implementation of the IFRSs as issued by the IASB and failure to abide by the guidance of these standards be met with sanctions and heavy fines or even delisting from the Stock Exchange and prosecution of the chief executives of the companies.

In the course of conducting this research, the need was identified for equipping and re-sensitization of accounting and auditing personnel as well as personnel in the Oil and Gas sector in terms of Continuous Professional Development (CPD) in order for them to keep up with the phase with which IASB is reviewing the existing IFRS and issuing new ones. There is need to update the accounting personnel on the application of standards like the *IFRS 6: exploration for and evaluation of mineral resources* on recognition, measurement and classification of E&E expenditures of Oil and Gas companies, *IAS 16: property, plant and equipment* which provides guidance on assets used to develop Oil and Gas assets, IAS 36: *impairment of assets* on how to conduct impairment test on Oil and Gas assets, *IFRS 11 and IFRS 12: Joint arrangements* and *Disclosure of interest in other entities* respectively and their impact on the contractual arrangements between Oil and Gas companies and the host Government in terms of JVs and PSCs.

This research has also identified that the existing JVs and the PSCs models of 1990 and 1995 (Article 3.1/1995 of the Joint Operating Agreement) did not specifically make provision for the decommissioning of Oil and Gas installations[23] moreover; the issue of which party bears the cost of decommissioning was clearly not addressed in these agreements. This study therefore recommends the review of these obsolete PSCs and JVs agreements in order to address these critical issues.

[23] *See Article 3.1.i of the Model Joint Operating Agreement. A broad analysis of the relevant provisions of the JOA is given in Godwin Etikerentse, Nigerian Petroleum Law 2nd edition (Lagos; Dredew Publishers 2004) at pg 37*

This study identified a financial information confidentiality clause (IAT 173) in the contractual relationships between Nigerian Government and IOCs also referred to as the non-circumvention and non-disclosure clause. This clause restricts Oil and Gas companies from disclosing financial and other information on upstream taxes, royalties, bonuses and other remittances to the Nigerian Government. This study recommends either the total review of the contractual agreement or the expungement of IAT 173 from the agreement to enable the IOCs to be more transparent. However, if the government opts for the review and re-negotiation of the contractual agreements, care must be taken not to create an anti-investment atmosphere that may be counterproductive to the industry.

The study also recommends the immediate implementation of the recommendations of the Nigerian Petroleum Industry Bill (PIB) recently approved by the country's National Assembly in order to restructure the Nigerian Oil and Gas sector, encourage investment and revamp the country's economy. Delay in the implementation of the recommendation of the PIB is putting on hold billions of dollars-worth of investment in Nigeria's energy sector (KPMG, 2013).

The study has noted with concern, the nonchalant attitude of Oil and Gas exploration companies operating in the onshore Niger Delta region of Nigeria towards the economic wellbeing of the local residents in this community. This study therefore strongly recommends the IASB to consider co-opting the framework of corporate social responsibility (CSR) of the Oil and Gas companies towards their immediate communities in the design of the next extractive sector specific accounting standards. This standard while taking into cognisance the compulsory environmental rehabilitation, should also clearly spell out the responsibilities of the Oil and Gas companies in ensuring a pollution free environment, provision of clean water, roads, hospitals, schools and other basic amenities to the immediate host communities.

The study noted that the governance agenda for Oil and Gas companies in Nigeria is presently patchy and inadequate relative to the scope of the problems facing the sector. The study therefore recommends initiatives to improve good governance especially with regards to remittances disclosure and revenue transparency by both the IOCs and Nigerian Government.

Finally, the study implores the unconditional implementation of sections 9.2.5 and 9.2.6 of the recommendations of the independent audit report assessing and reconciling the financial flows within Nigeria's Oil and Gas industry (2009 - 2011) presented to the Nigerian Extractive Industries Transparency Initiative (NEITI) by Sada, Idris and Co. Chartered Accountants, (2012).

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QUESTIONNAIRES:

QUESTIONNAIRE I

I am a PhD Student from Abertay University Dundee, Scotland. I am conducting a research on the adoption and implementation of International Financial Reporting Standards (IFRS) among CEOs of Oil and Gas firms, Accounting Governing Bodies, Accounting firms, Accountants and preparers of Oil and Gas company financial statements, auditors, financial analysts and other stakeholders in Nigeria. The purpose of this research is to investigate the impact of the adoption of IFRS on the financial statements of listed Oil and Gas Companies in Nigeria. This questionnaire will take approximately 10 minutes to complete and may be followed by a short interview.

While thanking you for your kind and invaluable time, I would like to assure you that no name of any individual, group or company that participates in this research will be mentioned. All respondents will be addressed as either "Case A" or "Case B" as appropriate. Moreover, all responses and views expressed would be strictly confidential and used only for the purpose of this research.

FOR CHIEF EXECUTIVE OFFICERS

Q1: Please indicate your Industry sector

Oil and Gas (Upstream) **( )**
Oil and Gas (Downstream) **( )**
Oil and Gas (Other) **…….**
Accounting Regulatory Body **( )**
Accounting Professional **( )**
Financial Analyst **( )**
Other **……..**

Q2: How familiar would you say you are with International Financial Reporting Standards (IFRS)? Please tick the option that best describes your familiarity with IFRS.

Highly Familiar	Very Familiar	Familiar	Slightly Familiar	Unfamiliar

Q3: Which accounting method is being currently used by your Company? Please tick your appropriate accounting method.

Full Cost (FC) Accounting Method	Successful Efforts (SE) Accounting Method	Other Accounting Methods	Don't Know

Q4: What would you say has been the impact of the transition from NG-GAAP to IFRS on the following expenditures in relation to your company? Please circle as appropriate.

	Highly Increased	Increased	No Impact	Decreased	Highly Decreased
Exploration and Evaluation (E&E) Expenditures					
Decommissioning Expenditures					

Q5a: To what extent does the adoption of IFRS affect the contractual relationship between your company and the Nigerian Government in terms of JVs or PSCs? Please tick as appropriate.

Highly Positively Affected	Positively Affected	No Clear Effect	Negatively Affected	Highly Negatively Affected

Q5b: In what ways did the adoption of IFRS affect the contractual relationship between your company and the Nigerian Government in terms JVs and PSCs? Please explain.

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Q6a: Was there any review of the contractual terms of JVs and PSCs between your company and the Nigerian Government between 2009 and 2013? Please tick as appropriate

Yes ( ) Go to Q6b **No ( ) Go to Q7a**

Q6b: What reviews were made in the contractual agreement between 2009 and 2013? Please explain

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Q7a: Would you say that the adoption of IFRS has affected your tax obligation to the Nigerian Government between 2009 – 2013? Please tick as appropriate

Yes ( ) Go to Q7b **NO ( ) Go to Q8a**

Q7b: To what extent does the adoption of IFRS affected your tax obligation to the Federal Government?

Significantly Higher Tax	Higher Tax	No Clear Change	Lower Tax	Significantly Lower Tax

Q8a: Would you say that the adoption of IFRS has affected your royalty obligation to the Nigerian Government 2009 – 2013? Please tick as appropriate

Yes ( ) Go to Q8b **No ( ) Go to Q9a**

Q8b: To what extent does the adoption of IFRS affect your royalty obligation to the Nigerian Government from 2009 - 2013?

Significantly Higher Royalty	Higher Royalty	No Clear Change	Lower Royalty	Significantly Lower Royalty

Q9a: Would you say that the adoption of IFRS has affected your Profit Oil Split (POS)? Please tick as appropriate

Yes ( ) Go to Q9b **No ( ) Go to Q10**

Q9b: To what extent does the adoption of IFRS affect your Profit Oil Split (POS)?

Significantly Higher POS	Higher POS	No Clear Change	Lower POS	Significantly Lower POS

Q10: Generally, what are your views regarding the adoption and implementation of IFRS in Nigeria?

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QUESTIONNAIRE II

I am a PhD Student from Abertay University Dundee, Scotland. I am conducting a research on the adoption and implementation of International Financial Reporting Standards (IFRS) among CEOs of Oil and Gas firms, Accounting Governing Bodies, Accounting firms, Accountants and preparers of Oil and Gas company financial statements, auditors, financial analysts and other stakeholders in Nigeria. The purpose of this research is to investigate the impact of the adoption of IFRS on the financial statements of listed Oil and Gas Companies in Nigeria. This questionnaire will take approximately 10 minutes to complete and may be followed by a short interview.

While thanking you for your kind and invaluable time, I would like to assure you that no name of any individual, group or company that participates in this research will be mentioned. All respondents will be addressed as either "Case A" or "Case B" as appropriate. Moreover, all responses and views expressed would be strictly confidential and used only for the purpose of this research.

FOR FINANCE DIRECTORS/ACCOUNTANTS:

Q1: Please indicate your Industry sector

Oil and Gas (Upstream) **( )**

Oil and Gas (Downstream) **( )**

Oil and Gas (Other) **…….**

Accounting Regulatory Body **( )**

Accounting Professional **( )**

Financial Analyst **( )**

Other **……..**

Q2: How familiar would you say you are with International Financial Reporting Standards (IFRS)? Please tick the option that best describes your familiarity with IFRS.

Highly Familiar	Very Familiar	Familiar	Slightly Familiar	Unfamiliar

Q3: What effects do you think the adoption of IFRS has had on the overall quality of the financial statements?

Much Higher	Slightly Higher	No Change	Lower Quality	Much Lower

Q4: To what extent do you think the adoption of IFRS has made consolidated FS easier to compare across competitors within the Oil and Gas sector?

Much Easier	Slightly Easier	No Change	Difficult	More Difficult

Q5: Do you use IFRS accounting for internal reporting and has it been appropriate for management purposes?
(Yes) Go to **Q6** (No) Go to **Q7**

Highly Appropriate	Appropriate	No Change	Inappropriate	Highly Inappropriate

Q6: How much easier or more difficult is it to explain your company's results under IFRS compared with your company's results prior to adoption of IFRS?

Much Easier	Slightly Easier	No Change	Difficult	Very Difficult

Q7: Generally speaking, what would you say has been the impact of IFRS on your companies' consolidated profits?

Much Higher	Higher	No Change	Lower	Much Lower

Q8: Considering your company's year-end reporting procedures, to what extent does the adoption of IFRS affect the following variables in the company's consolidated financial statements? Please tick as appropriate.

Variable	Highly Positively Affected	Positively Affected	No Change	Negatively Affected	Highly Negatively Affected
Equity					
Impairments					
Property, Plant and Equipment					
Intangible Assets					
Joint Arrangements					
Reclassification of Assets					
Inventories					
Current Assets					
Total Assets					
Total Liabilities					
Gross Profit Margin					
Asset Turnover					
Return On Assets					
Return on Invested Capital					

Q8b: Are there any other areas not already mentioned in which the introduction of IFRS has had a significant impact on your company's consolidated financial statements? Please explain.

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Q9: What would you say has been the impact of the transition from NG-GAAP to IFRS on the following expenditures in relation to your company? Please circle as appropriate.

	Highly Increased	Increased	No Impact	Decreased	Highly Decreased
Exploration and Evaluation (E&E) Expenditures					
Decommissioning Expenditures					

Q10a: To what extent does the adoption of IFRS affect the contractual relationship between your company and the Nigerian Government in terms of JVs or PSCs? Please tick as appropriate.

Highly Positively Affected	Positively Affected	No Clear Effect	Negatively Affected	Highly Negatively Affected

Q10b: In what ways did the adoption of IFRS affect the contractual relationship between your company and the Nigerian Government in terms JVs and PSCs? Please explain.

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Q11a: Was there any review of the contractual terms of JVs and PSCs between your company and the Nigerian Government between 2009 and 2013? Please tick as appropriate

Yes ( ) Go to Q11b **No ( ) Go to Q12a**

Q11b: What reviews were made in the contractual agreement between 2009 and 2013? Please explain

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Q12a: Would you say that the adoption of IFRS has affected your tax obligation to the Nigerian Government between 2009 – 2013? Please tick as appropriate

Yes ( ) Go to Q12b **NO ( ) Go to Q13a**

Q12b: To what extent does the adoption of IFRS affected your tax obligation to the Federal Government?

Significantly Higher Tax	Higher Tax	No Clear Change	Lower Tax	Significantly Lower Tax

Q13a: Would you say that the adoption of IFRS has affected your royalty obligation to the Nigerian Government 2009 – 2013? Please tick as appropriate

Yes ( ) Go to Q13b **No ( ) Go to Q14a**

Q13b: To what extent does the adoption of IFRS affect your royalty obligation to the Nigerian Government from 2009 - 2013?

Significantly Higher Royalty	Higher Royalty	No Clear Change	Lower Royalty	Significantly Lower Royalty

Q14a: Would you say that the adoption of IFRS has affected your Profit Oil Split (POS)? Please tick as appropriate

Yes ( ) Go to Q14b **No ( ) Go to Q15**

Q14b: To what extent does the adoption of IFRS affect your Profit Oil Split (POS)?

Significantly Higher POS	Higher POS	No Clear Change	Lower POS	Significantly Lower POS

Q15: Generally, what are your views regarding the adoption and implementation of IFRS in Nigeria?

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QUESTIONNAIRE III

I am a PhD Student from Abertay University Dundee, Scotland. I am conducting a research on the adoption and implementation of International Financial Reporting Standards (IFRS) among CEOs of Oil and Gas firms, Accounting Governing Bodies, Accounting firms, Accountants and preparers of Oil and Gas company financial statements, auditors, financial analysts and other stakeholders in Nigeria. The purpose of this research is to investigate the impact of the adoption of IFRS on the financial statements of listed Oil and Gas Companies in Nigeria. This questionnaire will take approximately 10 minutes to complete and may be followed by a short interview.

While thanking you for your kind and invaluable time, I would like to assure you that no name of any individual, group or company that participates in this research will be mentioned. All respondents will be addressed as either "Case A" or "Case B" as appropriate. Moreover, all responses and views expressed would be strictly confidential and used only for the purpose of this research.

FOR AUDITORS:

Q1: Please indicate your Industry sector

Oil and Gas (Upstream) **( )**
Oil and Gas (Downstream) **( )**
Oil and Gas (Other) **…….**
Accounting Regulatory Body **( )**
Accounting Professional **( )**
Financial Analyst **( )**
Other **……..**

Q2: How familiar would you say you are with International Financial Reporting Standards (IFRS)? Please tick the option that best describes your familiarity with IFRS.

Highly Familiar	Very Familiar	Familiar	Slightly Familiar	Unfamiliar

Q3: Have you ever been involved in the auditing of IFRS based financial statements?
(Yes) Go to **Q4** (No) Go to **Q8**

Q4: From your experience of auditing IFRS Financial Statements, what are your views regarding the following? Please tick as appropriate.

	Much Easier	**Slightly Easier**	**No Change**	**Slightly Difficult**	**More Difficult**
Ease of Audit of IFRS vs. NG-GAAP based FS					
Ease of Comparison of FS across competitors					

Q5: What effect do you think the move to IFRS has had on the quality of companies' consolidated financial statements?

Much Higher	**Slightly Higher**	**No Change**	**Lower Quality**	**Much Lower**

Q6: From your experience of audit of Oil and Gas companies, what would you say has been the impact of the transition on the following accounting numbers and financial variables? Please circle as appropriate.

	Significant Increase	**Some Increase**	**No Change**	**Some Decrease**	**Significant Decrease**
Equity					
Current Assets					
Total Assets					
Total Liabilities					
Inventories					
Gross Profit Margin					
Asset Turnover					
Return on Assets					
Return on Invested Capital					

Q7: Are there any other areas not already mentioned that you noticed in which the introduction of IFRS has had a significant impact on the Oil and Gas Company's consolidated financial statements? Please explain.

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Q8: Generally, what are your views regarding the adoption and implementation of IFRS in Nigeria?

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Thank you for your invaluable time and contribution to this research.

Please e-mail your response to **1108071@live.abertay.ac.uk**

LIST OF APPENDICES:

Appendix 5.1: Normality Test – Nigerian Oil and Gas Companies

Variables	Standards	Kolmogorov – Smirnov		Shapiro – Wilk	
		Statistic	Sign	Statistic	Sign
CA	GAAP	.296	.005	.763	.004
	IFRS	.288	.007	.806	.011
TA	GAAP	.451	.000	.532	.000
	IFRS	.401	.000	.544	.000
TL	GAAP	.377	.000	.614	.000
	IFRS	.357	.000	.697	.001
INV.	GAAP	.290	.006	.737	.002
	IFRS	.361	.000	.636	.000
EQUI	GAAP	.444	.000	.508	.000
	IFRS	.458	.000	.515	.000
GP	GAAP	.328	.001	.699	.001
	IFRS	.352	.000	.658	.000
GPM	GAAP	.212	.141	.886	.103
	IFRS	.213	.138	.905	.183
ATO	GAAP	.360	.000	.594	.000
	IFRS	.338	.000	.559	.000
ROA	GAAP	.270	.016	.672	.000
	IFRS	.228	.085	.787	.007
ROIC	GAAP	.196	.200	.884	.099
	IFRS	.262	.023	.804	.010
ROWC	GAAP	.178	.200	.864	.056
	IFRS	.233	.072	.865	.057
CR	GAAP	.259	.026	.778	.005
	IFRS	.139	.200	.928	.359
QR	GAAP	.226	.091	.892	.123
	IFRS	.161	.200	.967	.875
DR	GAAP	.149	.200	.931	.394
	IFRS	.254	.031	.855	.042
EPS	GAAP	.149	.200	.931	.394
	IFRS	.254	.031	.855	.042
E&E	GAAP	.454	.000	.552	.000
	IFRS	.404	.000	.497	.000
DECOM	GAAP	.278	.011	.815	.014
	IFRS	.237	.060	.767	.004
ADPC	GAAP	.231	.077	.855	.043
	IFRS	.203	.186	.895	.138

Appendix 5.2: Descriptive Statistics – NG-GAAP Nigerian Companies

Variables	Mean	Med	SD	Skew	Kurt.	Min.	Max.
CA	2328.1	379.0	429.86	2.134	3.383	82.8	2351.59
TA	4109.1	4873	821.95	2.495	5.903	15.87	4882.16
TL	863.9	413.2	105.48	2.572	6.975	21.66	1405.73
INV.	231.9	105.1	50.93	1.788	2.765	1.59	310.08
EQU	3321.8	917.2	578.62	2.674	7.091	61.15	4085.35
GP	549.7	238.8	74.66	1.662	1.461	-2.68	7430.54
GPM	13.69	10.26	10.77	.728	-.862	1.16	33.16
ATO	4.16	1.52	5.81	2.639	7.295	0.82	21.87
ROA	6.26	3.94	6.70	2.550	7.336	1.41	26.75
ROIC	4.96	4.14	2.27	.974	-.073	2.29	9.55
ROWC	7.55	6.86	5.84	1.383	2.761	0.64	22.93
CR	0.79	0.74	.002	2.183	.6.112	0.56	1.38
QR	0.70	0.67	.002	2.158	6.322	0.48	1.20
E&E	154.7	108.3	10.58	.709	-.745	1.46	363.1
DECOM	308	255	2.29	1.617	2.282	0.80	892
ADPC	23.75	26.5	18.00	1.213	1.1201	16.4	43.12

Appendix 5.3 Descriptive Statistics – IFRS Nigerian Companies

Variables	Mean	Median	SD	Skew.	Kurt.	Min.	Max.
CA	2738.8	539.7	508.84	2.143	3.467	90.9	3542.69
TA	4964.2	5784	1014.17	2.371	5.084	169.7	5244.85
TL	1225.4	457.1	158.28	1.642	1.629	115.2	2495.15
INV.	350.0	139.4	51.11	2.154	3.939	27.3	567.27
EQU	3923.7	1178.8	690.12	2.577	6.425	787.88	5346.06
GP	620.3	233.3	96.87	2.355	5.757	15.9	831.52
GPM	15.30	12.82	10.53	.448	-1.279	1.67	32.69
ATO	3.74	1.47	5.84	2.945	9.185	0.51	21.42
ROA	8.17	6.00	5.69	2.048	4.864	2.50	23.64
ROIC	8.07	5.76	6.43	1.828	3.692	2.12	24.85
ROWC	9.24	7.27	7.68	1.159	.793	1.58	22.73
CR	0.96	0.85	0.224	1.692	3.601	0.63	1.49
QR	0.58	0.56	0.126	1.067	1.693	0.41	0.878
E&E	210.5	131.8	15.85	.630	-1.143	21.82	472.7
DECOM	358	236	29.3	1.828	2.968	121	1091
ADPC	29.35	28.78	20.83	.204	-1.514	26.67	46.36

Appendix 5.4: Paired Samples t-test Nigerian Companies

Variable	Mean – GAAP	Mean - IFRS	T - Value	P - Value
CA	2328.1	2738.8	-2.274	.044
TA	4109.1	4964.2	-1.838	.093
TL	863.9	1225.4	-2.096	.060
INV.	231.9	350.0	-1.832	.094
EQUI	3321.8	3923.7	-2.306	.042
GP	549.7	620.3	-0.666	.519
GPM (%)	13.69	15.30	-2.505	.029
ATO	4.16	3.74	-0.649	.530
ROA %	6.26	8.17	-3.807	.003
ROIC %	4.96	8.07	-2.297	.042
ROWC %	7.55	9.24	-2.570	.026
CR	0.79	0.95	-6.258	.000
QR	0.70	0.58	4.402	.001
E&E	154.7	210.5	-2.667	.022
DECOM.	308	358	-1.968	.075
ADPC	23.75	29.35	-2.115	.058

Appendix 5.5: Wilcoxon Signed Rank Test – Nigerian Companies

Variable	Median – GAAP	Median – IFRS	Z - Value	P - Value
CA	379.0	539.7	-3.059	.002
TA	487.3	578.4	-2.353	.019
TL	413.2	457.1	-2.040	.041
INV.	105.1	139.4	-2.353	.019
EQUI	917.2	117.88	-3.062	.002
GP	238.8	233.3	-1.059	.289
GPM %	10.26	12.82	-2.197	.028
ATO	1.52	1.47	-0.039	.969
ROA %	3.94	6.00	-2.707	.007
ROIC %	4.14	5.76	-2.354	.019
ROWC %	6.86	7.27	-2.580	.010
CR	0.74	0.85	-3.061	.002
QR	0.67	0.56	-3.068	.002
E&E	108.3	131.8	-2.825	.005
DECOM	255	236	-1.688	.091
ADPC	26.5	28.78	-2.437	.015

Appendix 5.6: Decision – Nigerian Companies

Variables	Paired Sample t-test		Wilcoxon Signed Rank Test		Null Hypothesis
	t	P	Z	P	
CA	-2.274	.044	-3.059	.002	Reject
TA	-1.838	.093	-2.353	.019	Reject
TL	-2.096	.060	-2.040	.041	Reject
INV	-1.832	.094	-2.353	.019	Reject
EQUI	-2.306	.042	-3.062	.002	Reject
GP	-.666	.519	-1.059	.289	Accept
GPM	-2.505	.029	-2.197	.028	Reject
ATO	-0.649	.530	-0.039	.969	Accept
ROA	-3.807	.003	-2.707	.007	Reject
ROIC	-2.297	.042	-2.354	.019	Reject
ROWC	-2.570	.026	-2.580	.010	Reject
CR	-6.258	.000	-3.061	.002	Reject
QR	4.402	.001	-3.068	.002	Reject
E&E	-2.667	.022	-2.825	.005	Reject
DECOM.	-1.968	.075	-1.688	.091	Accept
ADPC	-2.115	.058	-2.437	.015	Reject

Appendix 5.7: Normality Test – African Companies

Variables	Standards	Kolmogorov – Smirnov		Shapiro – Wilk	
		Statistic	Sign	Statistic	Sign
CA	GAAP	.156	.032	.915	.010
	IFRS	.268	.000	.724	.000
TA	GAAP	.302	.000	.513	.000
	IFRS	.344	.000	.434	.000
TL	GAAP	.427	.000	.282	.000
	IFRS	.397	.000	.375	.000
INV.	GAAP	.156	.030	.901	.004
	IFRS	.136	.100	.918	.013
EQU.	GAAP	.116	.200	.937	.045
	IFRS	.172	.010	.941	.061
GP	GAAP	.185	.004	.735	.000
	IFRS	.161	.022	.853	.000
GPM	GAAP	.139	.085	.824	.000
	IFRS	.135	.108	.929	.025
ATO	GAAP	.229	.000	.931	.000
	IFRS	.186	.004	.940	.055
ROA	GAAP	.403	.000	.277	.000
	IFRS	.426	.000	.313	.000
ROIC	GAAP	.371	.000	.340	.000
	IFRS	.322	.000	.512	.000
ROWC	GAAP	.246	.000	.708	.000
	IFRS	.274	.000	.579	.000
CR	GAAP	.262	.000	.678	.000
	IFRS	.251	.000	.657	.000
QR	GAAP	.273	.000	.703	.000
	IFRS	.201	.001	.764	.000
DEBT	GAAP	.337	.000	.579	.000
	IFRS	.289	.000	.580	.000
EPS	GAAP	.259	.000	.604	.000
	IFRS	.330	.000	.463	.000
E&E	GAAP	.329	.000	.455	.000
	IFRS	.365	.000	.496	.000
DECOM.	GAAP	.304	.000	.505	.000
	IFRS	.261	.000	.603	.000
ADPC	GAAP	.319	.000	.500	.000
	IFRS	.312	.000	.563	.000

Appendix 5.8: Descriptive Statistics - GAAP African Companies

Variable	Mean	Median	SD	Skew.	Kurt.	Min.	Max.
CA	1099.9	378.9	429.83	4.018	15.786	82.8	1351.82
TA	2471.7	1010.0	799.12	4.449	20.806	356.7	2818.47
TL	504.3	331.2	112.10	4.009	18.668	63.7	805.73
INV.	215.9	159.2	32.038	2.357	6.237	19.11	475.87
EQU	1634.4	738.8	580.67	4.685	23.121	127.4	2085.35
GP	286.6	522	83.714	2.639	7.245	-6.37	987.35
GPM %	14.96	8.28	5.607	-.094	-0.613	1.95	15.92
ATO	4.01	1.91	8.815	2.353	5.109	0.191	22.29
ROA %	5.90	5.31	6.170	2.390	8.081	1.414	26.75
ROIC %	7.62	5.09	9.333	1.3870	1.384	1.274	24.84
ROWC %	8.77	5.92	11.734	1.416	1.612	0.637	31.84
CR	0.994	0.802	0.9398	2.736	8.337	0.458	3.337
QR	0.789	0.64	0.7344	2.689	8.523	0.338	2.69
E&E	862	522	13.396	1.727	2.5237	0.828	1631
DECOM.	314	268	3.404	1.394	1.832	0.707	939
ADPC	34.82	32.3	14.77	0.197	-0.539	27.78	45.62

Appendix 5.9: Descriptive Statistics - IFRS African Companies

Variables	Mean	Median	SD	Skew.	Kurt.	Min.	Max.
CA	1420.2	570.1	30.82	4.032	15.966	72.7	1545.70
TA	3034.9	1191.0	600.8	4.281	19.060	684.8	3244.84
TL	731.2	407.6	105.31	2.908	8.407	78.7	995.15
INV.	323.6	191.1	39.47	2.930	8.310	120.0	173.94
EQU	2095.7	1127.4	421.34	4.520	21.510	133.3	2346.06
GP	397.4	617.8	74.13	2.611	7.037	96.96	931.51
GPM %	12.94	13.38	9.54	0.088	-0.507	3.030	26.06
ATO	4.611	2.55	8.62	1.602	1.847	0.72	19.39
ROA %	8.20	5.98	5.87	1.204	1.026	0.818	14.72
ROIC %	10.96	10.50	7.19	1.047	0.338	1.091	27.27
ROWC %	10.49	7.01	7.97	1.134	0.428	1.21	30.91
CR	1.27	0.949	0.81	2.629	7.045	0.533	4.157
QR	0.688	0.599	0.235	2.361	6.761	0.152	1.194
E&E	1161	624	12.42	1.8001	2.594	6.67	2742
DECOM.	350	243	3.21	2.778	9.432	78.8	1698
ADPC	43.93	44.39	14.01	0.1737	0.313	37.2	48.11

Appendix 5.10: Paired Samples t-test African Companies

Variable	Mean – GAAP	Mean - IFRS	T- Value	P-Value
CA	1099.9	1420.2	-3.194	.003
TA	2471.7	3034.9	-2.526	.016
TL	504.3	731.2	-2.674	.011
INV.	215.9	323.6	-2.484	.018
EQUI	1634.4	2095.7	-3.502	.001
GP	286.6	397.4	-1.643	.110
GPM (%)	8.58	12.94	-4.395	.000
ATO	4.01	4.611	-1.537	.133
ROA %	5.90	8.20	-4.218	.000
ROIC %	7.62	10.96	-4.317	.000
ROWC %	8.77	10.49	-2.458	.019
CR	0.994	1.27	-5.394	.000
QR	0.789	0.688	4.560	.000
E&E	862	1161	-3.351	.002
DECOM.	314	350	-1.556	.129
ADPC	34.82	43.93	-4.264	.000

Appendix 5.11: Wilcoxon Signed Rank Test - African Companies

Variable	Median –GAAP	Median – IFRS	Z - Value	P-Value
CA	378.9	570.1	-4.210	.000
TA	1010.0	1191.0	-3.055	.002
TL	331.2	407.6	-3.326	.001
INV.	159.2	191.1	-3.359	.001
EQUI	738.8	1127.4	-4.591	.000
GP	522.3	617.8	-1.69	.077
GPM %	8.28	13.38	-3.847	.000
ATO	1.91	2.55	-1.261	.207
ROA %	5.31	5.98	-3.654	.000
ROIC %	5.09	10.50	-3.867	.000
ROWC %	5.92	7.01	-2.431	.019
CR	0.802	0.949	-5.161	.000
QR	0.641	0.599	-4.195	.000
E&E	522	624	-4.333	.000
DECOM	268	243	-1.392	.164
ADPC	32.3	44.39	-3.894	.000

Appendix 5.12: Decisions – African Companies

Variables	Paired Sample t-test		Wilcoxon Signed Rank Test		Null Hypothesis
	t	P	Z	P	
CA	-3.194	.003	-4.210	.000	Reject
TA	-2.526	.016	-3.055	.002	Reject
TL	-2.674	.011	-3.326	.001	Reject
INV.	-2.484	.018	-3.359	.001	Reject
EQUI	-3.502	.001	-4.591	.000	Reject
GP	-1.643	.110	-1.69	.077	Accept
GPM	-4.395	.000	-3.847	.000	Reject
ATO	-1.537	.133	-1.261	.207	Accept
ROA	-4.218	.000	-3.654	.000	Reject
ROIC	-4.317	.000	-3.867	.000	Reject
ROWC	-2.458	.019	-2.431	.019	Reject
CR	-5.394	.000	-5.161	.000	Reject
QR	4.560	.000	-4.195	.000	Reject
DR	-2.999	.005	-3.010	.003	Reject
EPS	-.996	.327	-1.838	.066	Accept
E&E	-3.351	.002	-4.333	.000	Reject
DECOM.	-1.556	.129	-1.392	.164	Accept
ADPC	-4.264	.000	-3.894	.000	Reject

Appendix 6.1: Questionnaire Responses – Preparers of Financial Statements

Sector of Respondent

Preparers of Financial Statement s		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Oil and Gas Upstream	10	27.0	27.0	27.0
	Oil and Gas Downstream	5	13.5	13.5	40.5
	Accounting Regulatory Body	9	24.3	24.3	64.9
	Professional Accountant	10	27.0	27.0	91.9
	Financial Analyst	3	8.1	8.1	100.0
	Total	37	100.0	100.0	

Familiarity of Respondent with IFRS

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Highly Familiar	22	59.5	59.5	59.5
	Very Familiar	15	40.5	40.5	100.0
	Total	37	100.0	100.0	

Use of IFRS For Internal Reporting

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Highly Appropriate	18	48.6	48.6	48.6
	Appropriate	12	32.4	32.4	81.1
	No Change	7	18.9	18.9	100.0
	Total	37	100.0	100.0	

Ease of Explanation of Company Results

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Much Easier	12	32.4	32.4	32.4
	Slightly Easier	9	24.3	24.3	56.8
	No Change	5	13.5	13.5	70.3
	Difficult	7	18.9	18.9	89.2
	Very Difficult	4	10.8	10.8	100.0
	Total	37	100.0	100.0	

Ease of Comparison of Results Across Competitors

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Much Easier to Compare	16	43.2	43.2	43.2
	Slightly Easier to Compare	13	35.1	35.1	78.4
	No Effect	3	8.1	8.1	86.5
	Slightly Difficult to Compare	4	10.8	10.8	97.3
	More Difficult to Compare	1	2.7	2.7	100.0
	Total	37	100.0	100.0	

Effect of IFRS Adoption on Quality of Financial Reports

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Much Higher Quality	19	51.4	51.4	51.4
	Slightly Higher Quality	13	35.1	35.1	86.5
	No Effect on Quality	3	8.1	8.1	94.6
	Lower Quality	2	5.4	5.4	100.0
	Total	37	100.0	100.0	

Effect of IFRS Adoption on Current Assets

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significant Increase	18	48.6	48.6	48.6
	Some Increase	11	29.7	29.7	78.4
	No Change	5	13.5	13.5	91.9
	Some Decrease	3	8.1	8.1	100.0
	Total	37	100.0	100.0	

Effect of IFRS Adoption on Total Assets

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significant Increase	17	45.9	45.9	45.9
	Some Increase	13	35.1	35.1	81.1
	No Change	4	10.8	10.8	91.9
	Some Decrease	3	8.1	8.1	100.0
	Total	37	100.0	100.0	

Effect of IFRS Adoption on Inventories

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significant Increase	16	43.2	43.2	43.2
	Some Increase	12	32.4	32.4	75.7
	No Change	5	13.5	13.5	89.2
	Some Decrease	2	5.4	5.4	94.6
	Significant Decrease	2	5.4	5.4	100.0
	Total	37	100.0	100.0	

Effect of IFRS Adoption on Gross Profit Margin

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significant Increase	16	43.2	43.2	43.2
	Some Increase	9	24.3	24.3	67.6
	No Change	8	21.6	21.6	89.2
	Some Decrease	4	10.8	10.8	100.0
	Total	37	100.0	100.0	

Effect of IFRS Adoption on Asset Turnover

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significant Increase	7	18.9	18.9	18.9
	Some Increase	8	21.6	21.6	40.5
	No Change	12	32.4	32.4	73.0
	Some Decrease	6	16.2	16.2	89.2
	Significant Decrease	4	10.8	10.8	100.0
	Total	37	100.0	100.0	

Effect of IFRS Adoption on Return On Assets

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significant Increase	14	37.8	37.8	37.8
	Some Increase	12	32.4	32.4	70.3
	No Change	10	27.0	27.0	97.3
	Some Decrease	1	2.7	2.7	100.0
	Total	37	100.0	100.0	

Effect of IFRS Adoption on Return On Invested Capital

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significant Increase	19	51.4	51.4	51.4
	Some Increase	10	27.0	27.0	78.4
	No Change	7	18.9	18.9	97.3
	Some Decrease	1	2.7	2.7	100.0
	Total	37	100.0	100.0	

Effect of IFRS Adoption on Equity

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significant Increase	16	43.2	43.2	43.2
	Some Increase	13	35.1	35.1	78.4
	No Change	4	10.8	10.8	89.2
	Some Decrease	4	10.8	10.8	100.0
	Total	37	100.0	100.0	

Impact of IFRS Adoption on Impairment of Assets

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Highly Positively	11	29.7	29.7	29.7
	Positively	12	32.4	32.4	62.2
	No Change	5	13.5	13.5	75.7
	Negatively	7	18.9	18.9	94.6
	Highly Negatively	2	5.4	5.4	100.0
	Total	37	100.0	100.0	

Impact of IFRS Adoption on Property, Plant and Equipment

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significant Increase	3	8.1	8.1	8.1
	Some Increase	3	8.1	8.1	16.2
	No Change	4	10.8	10.8	27.0
	Some Decrease	15	40.5	40.5	67.6
	Significant Decrease	12	32.4	32.4	100.0
	Total	37	100.0	100.0	

Impact of IFRS Adoption on Intangible Assets

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Highly Positively	3	8.1	8.1	8.1
	Positively	4	10.8	10.8	18.9
	No Change	5	13.5	13.5	32.4
	Negatively	13	35.1	35.1	67.6
	Highly Negatively	12	32.4	32.4	100.0
	Total	37	100.0	100.0	

Impact of IFRS Adoption on Joint Arrangements

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Highly Positively	16	43.2	43.2	43.2
	Positively	14	37.8	37.8	81.1
	No Change	6	16.2	16.2	97.3
	Highly Negatively	1	2.7	2.7	100.0
	Total	37	100.0	100.0	

Impact of IFRS Adoption on Exploration and Evaluation Expenditures

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Highly Increased	15	40.5	41.7	41.7
	Increased	11	29.7	30.6	72.2
	No Effect	7	18.9	19.4	91.7
	Decreased	3	8.1	8.3	100.0
	Total	36	97.3	100.0	
Missing	System	1	2.7		
Total		37	100.0		

Impact of IFRS Adoption on Decommissioning Expenditures

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Highly Increased	1	2.7	2.8	2.8
	Increased	6	16.2	16.7	19.4
	No Effect	18	48.6	50.0	69.4
	Decreased	8	21.6	22.2	91.7
	Highly Decreased	3	8.1	8.3	100.0
	Total	36	97.3	100.0	
Missing	System	1	2.7		
Total		37	100.0		

Effect of IFRS Adoption on Tax

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significantly Higher Tax	7	18.9	19.4	19.4
	Higher Tax	11	29.7	30.6	50.0
	No Change	8	21.6	22.2	72.2
	Lower Tax	8	21.6	22.2	94.4
	Significantly Lower Tax	2	5.4	5.6	100.0
	Total	36	97.3	100.0	
Missing	System	1	2.7		
Total		37	100.0		

Impact of IFRS Adoption on Royalty

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significantly Higher Royalty	7	18.9	19.4	19.4
	Higher Royalty	11	29.7	30.6	50.0
	No Change	16	43.2	44.4	94.4
	Lower Royalty	2	5.4	5.6	100.0
	Total	36	97.3	100.0	
Missing	System	1	2.7		
Total		37	100.0		

Impact of IFRS Adoption on Profit Oil Split

Preparers of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significantly Higher POS	6	16.2	16.7	16.7
	Higher POS	7	18.9	19.4	36.1
	No Effect	15	40.5	41.7	77.8
	Lower POS	5	13.5	13.9	91.7
	Significantly Lower POS	3	8.1	8.3	100.0
	Total	36	97.3	100.0	
Missing	System	1	2.7		
Total		37	100.0		

Appendix 6.2: Questionnaire Responses of Auditors
Sector of Respondent

Auditors of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Internal	10	55.6	55.6	55.6
	External	8	44.4	44.4	100.0
	Total	18	100.0	100.0	

Familiarity of Respondent with IFRS

Auditors of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Highly Familiar	10	55.6	55.6	55.6
	Very Familiar	8	44.4	44.4	100.0
	Total	18	100.0	100.0	

Involvement of Respondent In Audit of IFRS Financial Statements

Auditors of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Experience	18	100.0	100.0	100.0

Ease of Auditing IFRS Financial Statements

Auditors of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Much Easier	4	22.2	22.2	22.2
	Slightly Easier	2	11.1	11.1	33.3
	No Change	3	16.7	16.7	50.0
	Slightly Difficult	5	27.8	27.8	77.8
	More Difficult	4	22.2	22.2	100.0
	Total	18	100.0	100.0	

Ease of Comparison of IFRS Financial Statements

Auditors of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Much Easier	11	61.1	61.1	61.1
	Slightly Easier	3	16.7	16.7	77.8
	No Change	4	22.2	22.2	100.0
	Total	18	100.0	100.0	

Effect of IFRS Adoption on Quality of Financial Reports

Auditors of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Much Higher	9	50.0	50.0	50.0
	Slightly Higher	5	27.8	27.8	77.8
	No Change	4	22.2	22.2	100.0
	Total	18	100.0	100.0	

Effect of IFRS Adoption on Equity

Auditors of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significant Increase	10	55.6	55.6	55.6
	Some Increase	7	38.9	38.9	94.4
	No Change	1	5.6	5.6	100.0
	Total	18	100.0	100.0	

Effect of IFRS Adoption on Current Assets

Auditors of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significant Increase	9	50.0	50.0	50.0
	Some Increase	7	38.9	38.9	88.9
	No Change	2	11.1	11.1	100.0
	Total	18	100.0	100.0	

Effect of IFRS Adoption on Total Assets

Auditors of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significant Increase	9	50.0	50.0	50.0
	Some Increase	5	27.8	27.8	77.8
	No Change	4	22.2	22.2	100.0
	Total	18	100.0	100.0	

Effect of IFRS Adoption on Total Liabilities

Auditors of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significant Increase	7	38.9	38.9	38.9
	Some Increase	5	27.8	27.8	66.7
	No Change	2	11.1	11.1	77.8
	Some Decrease	4	22.2	22.2	100.0
	Total	18	100.0	100.0	

Effect of IFRS Adoption on Inventories

Auditors of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significant Increase	10	55.6	55.6	55.6
	Some Increase	5	27.8	27.8	83.3
	No Change	3	16.7	16.7	100.0
	Total	18	100.0	100.0	

Effect of IFRS Adoption on Gross Profit Margin

Auditors of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significant Increase	8	44.4	44.4	44.4
	Some Increase	6	33.3	33.3	77.8
	No Change	3	16.7	16.7	94.4
	Some Decrease	1	5.6	5.6	100.0
	Total	18	100.0	100.0	

Impact of IFRS Adoption on Asset Turnover

Auditors of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significant Increase	8	44.4	44.4	44.4
	Some Increase	2	11.1	11.1	55.6
	No Change	5	27.8	27.8	83.3
	Some Decrease	2	11.1	11.1	94.4
	Significant Decrease	1	5.6	5.6	100.0
	Total	18	100.0	100.0	

Effect of IFRS Adoption on Return on Assets

Auditors of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significant Increase	7	38.9	38.9	38.9
	Some Increase	4	22.2	22.2	61.1
	No Change	6	33.3	33.3	94.4
	Some Decrease	1	5.6	5.6	100.0
	Total	18	100.0	100.0	

Effect of IFRS Adoption on Return on Invested Capital

Auditors of Financial Statements		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Significant Increase	6	33.3	33.3	33.3
	Some Increase	7	38.9	38.9	72.2
	No Change	5	27.8	27.8	100.0
	Total	18	100.0	100.0	

Appendix 6.3: List of Extractive Sector Companies Examined

Extractive Sector Listed Companies in Africa							
1	Anino International Plc	13	Tullow Oil Plc	25	Exxaro Resources Limited	37	TOL Gases Ltd Tanzania
2	Eterna Oil Plc	14	Shumba Energy Mauritius Limited	26	Delrand Resources Limited	38	African Energy Resources Ltd Botswana
3	Capital Oil Plc	15	Sentula Mining Limited	27	Pan African Resources Plc	39	Magnum Gas and Power Ltd
4	Conoil Nigeria Plc	16	Puma Energy (Z) Ltd	28	Jubilee Platinum Plc	40	Total Kenya Ltd
5	Forte Oil Plc	17	ZCI Limited SA	29	Anglo American Plc	41	Swala Gas and Oil Tanzania
6	Japaul Oil and Maritime Services Plc	18	Total Petroleum Ghana Limited	30	Diamond Corp Plc	42	Eco (Atlantic) Oil and Gas Namibia
7	Mobil Oil Nigeria	19	Oando Plc South Africa	31	Kibo Mining Plc	43	Marenica Energy Ltd Namibia
8	MRS Oil Nigeria Plc Plc	20	AEL Mining Services (Z) Plc	32	Keaton Energy Holdings Limited	44	Anglo American Plc
9	Oando Oil Nigeria Plc	21	Erin Energy Corporation	33	Firestone Energy Limited	45	Paladin Energy
10	Multiverse Oil Plc	22	African Rainbow Minerals	34	Sacoil Holdings Limited	46	Bannerman Resources Limited
11	Total Oil Nigeria Plc	23	Alliance Mining Corporation Limited	35	Tawana Resources NL	47	Copperbelt Energy Corporation Plc
12	Navitus Energy Plc	24	Atlatsa Resources Plc	36	Ghana Oil Company Limited		

Appendix 6.4: Characteristics of Nigerian Statement of Accounting Standards (SASs) or NG - GAAP

STANDARD	DESCRIPTION	APPLICATION
SAS 1	Disclosure of accounting policies	This standard prescribes the specific principles, bases, conventions, rules and practices adopted by an enterprise in preparing and presenting financial statements.
SAS 2	Information to be Disclosed in Financial Statements	This standard prescribes the basis for presentation of general purpose financial statements, in order to ensure comparability both with an enterprise's own financial statements of previous periods and with the financial statements of other enterprises.
SAS 3	Accounting for Property, Plant and Equipment	This standard deals with accounting for property, plant and equipment under the historical cost concept and the revaluation of specific items of property, plant and equipment
SAS 4	On Stocks	This standard prescribes the accounting treatment for inventories under the historical cost system. A primary issue in accounting for inventories is the amount of cost to be recognized as an asset and carried forward until the related revenues are recognized.
SAS 5	Construction Contracts	This standard prescribes the accounting treatment of revenue and costs associated with construction contracts that are specifically negotiated for the construction of an asset or a combination of assets that are closely interrelated or interdependent in terms of their design, technology and function or their ultimate purpose or use.
SAS 6	On Extraordinary Items & Prior Year Adjustments	This standard aimed at examining the issues involved in the determination of operating income in any given accounting period and to prescribe the accounting treatment of extraordinary and unusual items and prior year adjustments as well as their appropriate disclosure in financial statements.
SAS 7	On Foreign Currency Conversions & Translations	This standard is to provide uniform accounting treatment for foreign exchange transactions and the translation by a Nigerian enterprise of the financial statement of its foreign branches, subsidiaries, associates, or joint ventures based in a country other than Nigeria
SAS 8	Accounting for Employees' Retirement Benefits	This standard prescribes when the cost of providing retirement benefits should be recognized as an expense and the amount that should be recognized and information to be disclosed in the enterprise's financial statements.
SAS 9	Accounting for Depreciation	This standard is to provide a guide for uniform and acceptable methods of determining and reporting depreciation on items of property, plant and equipment whether such items are stated at their historical costs or revalued amounts.
SAS 10	Accounting by Banks and Non-Bank Financial Institutions (Part I)	This standard seeks to provide a guide for accounting policies and accounting methods that should be followed by banks in the preparation of their financial statements. Improved accounting and reporting practices are important in ensuring reliable financial statements that are comparable across the industry.
SAS 11	On Leases	This standard is to ensure that published financial statement contain sufficient information about lease transactions to make it possible for users of such statements to determine the effects of lease commitments on the present and future operations of the reporting enterprises and to ensure uniform disclosure of terms and classes of leases in financial statements.
SAS 12	Accounting for Deferred Taxes	This standard is to provide a guide for uniform and acceptable methods and bases used in providing for deferred taxes, computation of deferred taxes and presentation in the financial statements
SAS 13	Accounting for Investments	This standard deals with situations where the size of the investments do not enable the investor to exercise significant influence or control over the financial and operating decisions of the investee companies.
SAS 14	Accounting in the Petroleum Industry: Upstream Activities	This standard deals with accounting and reporting for upstream activities which involves the acquisition of mineral interest in properties, exploration (including prospecting), development, and production of crude oil and gas.
SAS 15	Accounting by Banks and Non-Bank Financial Institutions (Part II)	This standard seeks to provide a guide for accounting policies and accounting methods that are to be followed by Non-Bank Financial Institutions with focus on Income recognition, Loss recognition and Classification and disclosures in Financial Statements.

SAS 16	Accounting for Insurance Business	This standard establishes financial accounting and reporting standards for the financial statements of non-life and life assurance undertakings and also intended to apply to the financial statements prepared in accordance with the requirements of the Companies and allied Matters Decree, 1990 and the Insurance Decree, 1997.
SAS 17	Accounting for Petroleum Industry: Downstream Activities	This standard provides a guide on accounting practices and reporting formats to be followed by companies operating in the downstream sector of the Nigerian petroleum industry, such companies; Refining and Petrochemicals, Marketing and Distribution and Liquefied Natural gas.
SAS 18	Statement of Cash Flows	This standard provides information about the cash receipts and cash payments of an enterprise over a given period, it indicates the pattern of cash generation and utilization, it reveals how cash is generated from operations or through new capital raised and how payments are made for taxes, dividends, new investments and debts. It is designed to shed light on ail enterprise's financial strength.
SAS 19	Accounting for Taxes	This standard covers taxes on business organizations. These include companies Income Tax, Petroleum Profits Tax, Capital gains Tax, Value Added Tax and Education Tax; it therefore replaces the statement of accounting Standard No.12
SAS 20	On Abridged Financial Statements	The primary objectives of this standard are to specify the minimum contents of abridged financial statements standardize formats for presentation of abridged financial statements and improve comparability and usefulness of abridged financial statements.
SAS 21	On Earnings Per Share	This standard is to prescribe principles for the determination and presentation of earnings per share which will improve performance comparisons among different enterprises in the same period and among different accounting periods for the same enterprise. The focus is on the denominator of the earnings per share calculation.
SAS 22	On Research and Development Costs	This standard prescribes the accounting treatment for research and development costs and is expected to provide an acceptable and uniform accounting practice for entities that engage in research and development activities whether for product/service development or as a grant to research entities for related purposes.
SAS 23	On Provisions, Contingent Liabilities and Contingent Assets	This standard deals with financial transactions of significant impact on the result of an entity that may not have been concluded with certainty at the end of a financial year and order to ensure systematic and consistent basis of accounting for provisions, contingent liabilities and contingent Assets, there is need to standardize their recognition, treatment and disclosure in financial statements.
SAS 24	Segment Reporting	This Statement establishes acceptable guide for:- -Classification by segments in terms of business and location; -Determining what constitutes material segment; and -Formats for the presentation of financial statements by segments.
SAS 25	Telecommunications activities	This Standard aims at streamlining the accounting treatment so as to enhance the comparability and usefulness of financial statements prepared for telecommunications activities.
SAS 26	Business Combinations	A business combination is the bringing together of separate entities or businesses into one reporting entity. The result of nearly all business combinations is that one entity, the acquirer, obtains control of one or more other businesses, the acquirees.
SAS 27	Consolidated and Separate Financial Statements	The main objective of this Statement is to reduce alternative methods in accounting for subsidiaries in consolidated financial statements and in accounting for investments in the separate financial statements of a parent, venturer or investor.
SAS 28	Investments in Associates	This Standard sets out the criteria to establish significant influence and provides specific requirements on accounting for associates in the consolidated financial statements under the equity method and the disclosures required.

SAS 29	Interests in Joint Ventures	This Standard establishes guidelines as to the scope of accounting for interests in Joint Ventures, the alternative methods that might be adopted and the limited circumstances under which interests in Joint Ventures might be accounted for at cost, less any provision for impairment.
SAS 30	Interim Financial Reporting	Interim financial reports are accounting information covering the operations of an organisation for a period less than a full financial year, developed at various points during the year. Such reports usually cover a period of three, six or nine months.
SAS 31	Intangible Assets	Guidance is only available on research and development cost. Research is a systematic investigation undertaken with the hope of gaining new scientific or technical knowledge and understanding. Development is the application of research findings or other knowledge to a plan or design for the production of new or substantially improved materials, devices, products, processes, systems or services before the start of commercial production or use.

Source: Financial Reporting Council of Nigeria (FRC), 2012

Appendix 6.5: Similarities and Differences - IFRS and Nigerian GAAP

SUBJECT	IFRS	NG-GAAP EQUIVALENT
FIRST TIME ADOPTION OF IFRS	**IFRS 1:** First-Time adoption of international financial reporting Standards: IFRS includes a specific standard with guidance on how to apply IFRS for the first time (IFRS 1 'First-time adoption'). It introduces certain reliefs and imposes certain requirements and disclosures including guidance on accounting policies, exemptions and exceptions	No Equivalent Standard in Nigeria. All Nigerian entities must apply Nigerian GAAP from their inception. All listed and significant public interest entities (as defined by the Roadmap to IFRS as issued by the Nigerian Accounting Standards Board) will need to comply with IFRS for periods ending after 1 January 2012.
PRESENTATION OF FINANCIAL STATEMENT	**IAS 1:** Presentation of financial statement: Consist of: - Statements of Financial Position - Income statement - Statement of cash flow -Statement of other comprehensive Income (e.g. revaluation gains, foreign exchange etc.) - Statement of changes in equity - Accounting policies; and -Notes to Accounts Under IFRS, an entity shall present all items of income and expense recognised in a single statement of comprehensive income, or in two statements: a statement displaying components of profit or loss (separate income statement) and a second statement beginning with profit or loss and displaying components of other comprehensive income (statement of comprehensive income).	**SAS 2:** Information to be disclosed in financial statement: - Balance sheet - Profit and loss Account - Cash flows statement - Accounting policies - Notes to Accounts - Statement of value added - Five-year financial summary Under Nigerian GAAP Private Companies (as defined in the CAMA), need not disclose the accounting policies, statement of cash flows, value added statement or five-year financial summary.
IVENTORIES	**IAS 2:** Inventories	**SAS 4:** On stocks Similar to IFRS: Inventories are assets: i) Held for sale in the ordinary course of business, ii) In the process of production for such sale, or iii) In the form of materials or supplies to be consumed in the production process or in the rendering of services. Carried at lower of cost and net realisable value. Both IFRS and NG-GAAP allow FIFO or weighted average method to determine cost and prohibit LIFO.
BUSINESS COMBINATION	**IFRS 3:** Business combinations	**SAS 26:** Business combinations
INSURANCE CONTRACT	**IFRS 4:** Insurance contract: An insurance contract is a contract under which one party (the insurer) accepts significant insurance risk from another party (the policyholder) by agreeing to compensate the policyholder if a specified uncertain future event (the insured event) adversely affects the policyholder	**SAS 16:** Insurance contract Under NG – GAAP, Two types of insurance businesses are identified: • General business: an insurance business other than life assurance business. It is also called non-life business. General insurance provides protection against losses which may result from occurrence of specified

		events within specified periods. • Life assurance: an insurance business under which, in consideration for a premium, the company undertakes to pay an agreed benefit primarily on the survival of the policyholder to a specified age or on death. These definitions underline the difference in the standards in that IFRS concentrates on insurance contracts and Nigerian GAAP on insurance businesses.
EXPLORATION FOR AND EVALUATION OF MINERAL RESOURCES	**IFRS 6:** Explorations for and evaluation of mineral resources **IFRS 6** deals with the exploration for and evaluation of mineral Resources in the extractive industry (e.g. oil and gas and mining). The standard focuses on the exploration and evaluation phases only.	**SAS 14:** Accounting for petroleum industry: Upstream activities: **SAS 17:** Accounting for petroleum industry: Downstream activities: Under NG-GAAP, Guidance exists for the upstream and downstream petroleum industries. Upstream activities involve acquisition of mineral rights in properties, exploration, development and production of crude oil and gas. Downstream activities involve transporting, refining and marketing of oil, gas and derivatives.
CASH FLOW STATEMENT	**IAS 7:** Cash flow statements flow -The cash flows reported under IAS 7 relate to inflows and outflows of cash and cash equivalents	**SAS 18:** Statement of cash. - IAS 7 and SAS 18 require cash flows to be reported under three sections: operating, investing and financing activities.
SEGMENTAL REPORTING	**IFRS 8:** Segmental reporting IFRS has specific requirements for the identification, measurement and disclosure of segment information	**SAS 24:** Segment reporting. Nigerian GAAP requires entities to split results by individual business and geographical segments.
CONSTRUCTION CONTRACTS	**IAS 11:** Construction contracts Under IAS 11, Revenue and profit on long-term contracts are accounted for using the percentage-of-completion method. Completed contract is method prohibited	**SAS 5:** Construction contract. Whereas SAS 5, Allows the percentage-of-completion and completed-contract approaches depending on the circumstances.
INCOME TAXES	**IAS12:** Income taxes	**SAS 12:** Accounting for deferred tax: In both IFRS and NG-GAAP, Current tax for the current and prior periods should be recognised as a liability to the extent unpaid. If the amount paid exceeds the amounts due, the excess shall be recognised as an asset.
PROPERTY, PLANT AND EQUIPMENT	**IAS 16:** Property, plant and equipment: Under IFRS, the cost of an item of property, plant and equipment comprises: a) its purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates; b) any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management; c) the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located.	**SAS 3:** Property, plant and equipment: Whereas under NG-GAAP, an items of property, plant and equipment should be recorded at date of acquisition at their initial cost including directly attributable expenses incurred in order to bring them into operation for the intended use,

LEASES	**IAS17:** Leases	**SAS 11:** Leases IFRS and NG-GAAP are similar; The amount due from a lessee under a finance lease is recognised as a receivable at an amount equal to the net investment in the lease. At any point in time, this will comprise the total of the future minimum lease payments less gross earnings allocated to future periods. An asset leased under an operating lease should be recognised by the lessor and depreciated or amortised over its useful life.
REVENUE	**IAS18:** Revenue IFRS requires measurement of revenues at the fair value of the Consideration received or receivable. This is usually the amount of cash or cash equivalents received or receivable. Where the payment is deferred, discounting to a present value is required	No Equivalent standard. There is no general guidance on the measurement for revenue under NG-GAAP.
EMPLOYMENT BENEFITS	**IAS 19:** Employee benefits Comparable to SAS 8	**SAS 8:** On employment retirement benefits: Nigerian GAAP focuses on accounting for employee retirement benefits and does not provide guidance on other types of employee benefits. It specifically excludes benefits resulting from termination indemnities; long-term leave benefits; redundancy plans or strictly gratuitous schemes, health and welfare or bonus plans; and national insurance benefit schemes, government pension schemes and social security arrangements.
FOREIGN EXCHANGE	**IAS 21:** The effect of changes in foreign exchange rates: Under IFRS, translation of transactions denominated in a foreign currency is done at the exchange rate valid as at the transaction date. • Monetary assets and liabilities denominated in a foreign currency are translated at the closing (balance sheet) exchange rate. • Non-monetary foreign currency assets and liabilities are translated at the appropriate historical acquisition rate	**SAS 27:** Foreign currency conversion and translation: Under NG-GAAP guidance identifies the concept of reporting currency and identifies Naira as the reporting currency for Nigeria. All entities must prepare their financial statements using the domestic currency: Naira. Translation of transactions denominated in a foreign currency is done at the exchange rate valid as at the transaction date.
CONSOLIDATED FINANCIAL STATEMENTS	**IAS 27:** Consolidated and separate financial statements	**SAS 27:** Consolidated and separate financial statements IAS 27 and SAS 27: Are similar and require the preparation of consolidated financial statements by a parent entity that includes all subsidiaries.
INVESTMENT IN ASSOCIATES	**IAS 28:** Investment in associate Under IFRS, these investments are carried at cost less impairments or at fair value in accordance with the principles applicable for other equity investments	**SAS 28:** Investment in associate In Nigeria, these investments are carried at cost or at fair value in line with other long-term investments.
JOINT VENTURES	**IFRS 11 and 12 (IAS 31):** Interest in joint venture IFRS defines a Joint Venture as a	**SAS 29:** Interests in joint ventures: SAS 29 is Comparable to IFRS.

	contractual agreement whereby two or more parties undertake an economic activity that is subject to joint control	
INTERIM REPORTNG	**IAS 34:** Interim reporting Under IFRS, there is no requirement for an entity to publish interim financial statements. However, a number of territories and regulators require or recommend entities (e.g. listed entities) to publish interim financial statements.	**SAS 30:** Interim reporting Under NG-GAAP, Interim reports are required to be released within 45 days of the end of the interim reporting period. However, It is not mandatory to prepare interim reports. Where an entity elects to do so, the 45 days rule will apply.
IMPAIREMENT	**IAS 36:** Impairment of assets The recoverable amount of the cash-generating unit (i.e., the higher of its fair value less costs to sell and its value in use) is compared to its carrying amount. The impairment loss is recognised in operating results as the excess of the carrying amount over the recoverable amount	No Equivalent Standard Under NG-GAAP. The closest standard is **SAS 9:** accounting for depreciation under NG-GAAP There is no guidance on how to perform the impairment test under NG-GAAP
DECOMMISSIONING	**IAS 37:** Provision, contingent liabilities and contingent assets **IFRIC 1:** Changes in existing decommissioning, restoration and similar liabilities	**SAS 23:** provision, contingent liabilities and contingent assets IFRS requires oil and gas firms provide for decommissioning expenditure as the PV of the estimated cost of decommission, whereas NG-GAAP requires oil and gas firms to make provision for the decommissioning costs less an estimated salvage value of the items of PP&E
INTANGIBLE ASSETS	**IAS 38:** Intangible assets Under IFRS, an intangible asset is recognised separately from goodwill if it represents contractual or legal rights or is capable of being separated or divided and sold, transferred, licensed, rented or exchanged.	No Equivalent Standard under NG-GAAP Although the approach to the purchase method is similar under Nigerian GAAP, there is no guidance on identifying intangible assets or how to account for them after the acquisition date. There is no definition for identifiable intangible assets.
INVESTMENT PROPERTY	**IAS 40:** Investment property IFRS - Property (land and buildings) held in order to earn rentals and/or for capital appreciation. It does not include owner-occupied property or property held for sale	**SAS 13:** Accounting for investment. NG-GAAP - An investment property is an investment in land or buildings held primarily for generating income or capital appreciation and not occupied substantially for use in, or in operations of, the investing enterprise or another enterprise in the same group as the investing enterprise. A property is deemed to be substantially occupied if the owner or another enterprise in the same group occupies more than 15% of the lettable space. Measured initially at its cost under both IFRS and NG-GAAP
AGRICULTURE	**IAS 41:** Agriculture: IAS 41 applies to the accounting for biological assets and agricultural products at the point of harvest. A biological asset is a living animal or plant. Agricultural produce is the harvested product of an entity's biological assets	No Equivalent Standard under NG-GAAP There is no guidance under NG-GAAP

Source: PriceWaterhouseCoopers, 2011

Appendix 6.6: Similarities and differences - IFRS and UK-GAAP

Subject	IFRS	UK-GAAP
IAS 1: Presentation of Financial Statement **FRS18, Accounting Policies** **FRS 3: Reporting Financial Performance**	Includes: -Balance sheet -Income statement -Statement of changes in equity and -Cash flow statement -Does not prescribe order of items presentation	: Similar to IFRS -Strict format in which items are presented
IAS2: Inventories **SSAP9: Stocks and long-term contracts**	-Require that inventories should be measured at the lower of cost and net realisable value. -IAS 2 requires that an entity must use the same cost formula for all inventories having a similar nature and use to the entity	-Similar to IFRS - SSAP9 did not specifically state the cost formula for inventories - LIFO method valid in SSAP 9, not valid in IAS 2
IAS 7: Cash flow statements **FRS 1: Cash flow statements**	-The cash flows reported under IAS 7 relate to movements in cash and cash equivalents. - IAS 7 requires cash flows to be reported under three sections: operating, investing and financing,	Under FRS 1, there is no concept of 'cash equivalents. - FRS 1 requires cash flows to be reported in far greater detail under nine standard headings.
IAS 10: Events after the balance sheet date **SSAP 17: Accounting for post-balance sheet events** **FRS 21: Events after the balance sheet date**	Assets and liabilities should be adjusted for subsequent events providing further evidence of conditions that existed at the balance sheet date, but not for events that are indicative of conditions that arose subsequent to the balance sheet date.	Similar to IFRS
IAS 12: Income taxes **FRS 19: Deferred taxation** **FRS 16: Current tax**	IAS 12 is similar to FRS 16 in respect of current taxes, except that IAS 12 requires current tax to be presented separately on the face of the balance sheet (there is no such requirement in FRS 16). - IAS 12 requires current tax to be charged directly to equity if it relates to items that are also charged or credited directly to equity. - IAS 12 prohibits the discounting of deferred tax	FRS 16 requires all current tax to be included in the statements of performance (that is, profit and loss account) - FRS 19 permits, but does not require, discounting of deferred tax.
IAS 14: Segment reporting **SSAP 25: Segmental reporting**	IAS 14 applies to entities whose equity or debt securities are publicly traded or in the process of being so. - Extensive disclosure is required for primary segments, with considerably less information required to be disclosed for secondary segments	SSAP 25 applies to public companies, banking and insurance companies and groups and certain other large entities. - SSAP 25 does not make such a distinction.
IAS 16: Property, plant and equipment **FRS 15: Tangible fixed assets**	IAS 16 excludes from its scope property, plant and equipment classified as held for sale in accordance with IFRS 5, biological assets related to agricultural activity (covered by IAS 41), the recognition and measurement of exploration and evaluation assets (covered by IFRS 6) and mineral rights and mineral reserves	FRS 15 does not exclude these types of asset from its scope. However, both IAS 16 and FRS 15 exclude investment properties (covered by IAS 40 and SSAP 19 respectively).
IAS 17: Leases **SSAP 21: Accounting for leases and hire purchase contracts**	Both IAS 17 and SSAP 21 require leases to be classed as finance leases or operating leases. The definition of a finance lease is the same in both standards. IAS 17 requires that a lease of land and buildings should be split at inception of the lease into a separate lease of land and a lease of buildings. Unless title is expected to pass to the lessee at the end of the lease term, leases of land should normally be treated as operating leases. The buildings element would be classified as an operating or finance lease as appropriate	IAS 17 does not provide a quantitative test of whether a lease is a finance lease (the '90% test'), instead it provides additional guidance on when a lease should be classified as finance lease. Leases of buildings are more likely to be classified as finance leases under IAS 17 than under SSAP 21 where the land and buildings are considered together.
IAS 21: The effects of changes in	-IAS 21 requires that entities should measure	-Similar to IFRS

foreign exchange rates **SSAP 20: Foreign currency translation** **FRS 23: The effects of changes in foreign exchange rates**	their results in their functional currency. IAS 21 permits entities to present their financial statements in any currency, not necessarily their functional currency, and calls this the 'presentation' currency. On initial recognition, both IAS 21 and SSAP 20 require transactions denominated in a foreign currency to be translated at the exchange rate in operation on the date of the transaction.	- However, SSAP 20 permits the use of the exchange rate specified in a related or matching forward contract. IAS 21 does not permit this
IAS 23: Borrowing costs **FRS 15: Tangible fixed assets (part)**	A policy of capitalisation is allowed under IAS 23 for borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset. Where specific borrowings are taken out to finance an asset, there are differences in the determination of the interest that can be capitalised. Under IAS 23, the amount of interest eligible for capitalisation is the actual costs incurred on the borrowings less any interest earned on the temporary reinvestment of funds not used.	-Similar to IFRS - Under FRS 15, the amount of interest eligible for capitalisation is limited to costs incurred on borrowings in respect of expenditures to date.
IAS 31: Interests in joint ventures **FRS 9: Associates and joint ventures (part)**	IAS 31 identifies three types of joint ventures, Jointly controlled 'entities', jointly controlled operations and jointly controlled assets -For jointly controlled entities, IAS 31 requires use of either proportionate consolidation or the equity method	Under FRS 9, only jointly controlled 'entities' are classified as joint ventures and the definition is more restrictive than IAS 31 -FRS 9 does not permit proportionate consolidation and requires use of the 'gross equity' method for joint ventures
IAS 33: Earnings per share **FRS 14: Earnings per share 2** **FRS 22:, Earnings per share**	Earnings per share (EPS) must be disclosed for listed entities. both IAS 33 and FRS 14 are substantially the same in the method used to calculate EPS	Same as IFRS
IAS 34: Interim financial reporting **ASB Statement: – Interim reporting**	No requirement under IFRS to publish an interim financial report. However, entities that are required by local regulators or voluntarily elect to publish an interim financial report in accordance with IFRS, must apply IAS 34	In the UK, listed companies are required by the Listing Rules to publish half-yearly interim reports.
IAS 36: Impairment of assets **FRS 11: Impairment of fixed assets and goodwill**	The basic approach in IAS 36 is the same as that in FRS 11	However, there are some differences between IAS 36 and FRS 11 arising from the UK view of intangible assets as being of a similar nature to goodwill, whereas under IFRS, intangible assets are treated as akin to tangible fixed assets.
IAS 38: Intangible assets **FRS 10: Goodwill and intangible assets 3** **SSAP 13: Accounting for research and development**	Under both IFRS and UK GAAP, an intangible asset is an identifiable non-monetary asset without physical substance. Under IAS 38, an asset is identifiable when it is separable (that is, capable of being sold separate from the entity) or arises from contractual or other legal rights. Under IAS 38, research costs must be written off as incurred, whereas development costs are capitalised where particular criteria are met	Under FRS 10, the assets have to be capable of being disposed of separately from the business. -An entity may choose to capitalise development costs
IAS 41: Agriculture **No corresponding UK standard**	IAS 41 deals with accounting for agricultural activity. This is defined as the managed biological transformation of biological assets (living animals and plants) for sale, into agricultural produce or into additional biological assets.	There is currently no equivalent UK standard, although SSAP 9 applies to stocks
IFRS 5: Non-current assets held for sale and discontinued operations **FRS 3: Reporting financial performance**	IFRS 5 sets out requirements for the classification, measurement and presentation of noncurrent assets held for sale.	There is no equivalent UK standard.

Source: PricewaterhouseCoopers, 2005

Appendix 6.7: Similarities and Differences - IFRS and US-GAAP

SUBJECT	US GAAP	IFRS	IMPACT
Inventory Valuation	Permits LIFO, FIFO, weighted average cost, or specific identification. Inventory carried at lower of cost or market	Permits FIFO or weighted average cost; LIFO not permitted. Inventory carried at lower of cost or net realizable value.	Companies that use LIFO must revalue inventory, which could result in major tax liabilities due to the IRS's LIFO conformity rule
Asset Valuation	Assets can be written down, but not written up. PP&E is valued at historical cost.	Allows upward revaluation when an active market exists for intangibles; allows revaluation of PP&E to fair value.	Book values are likely to increase under IFRS.
Asset Impairment	Two-step impairment.	Single-step impairment.	Book values are likely to increase under IFRS.
Revenue Recognition	Provides very specific general and industry guidance about what constitutes revenue, how revenue should be measured, and the effect of timing on recognition.	Not specific about the timing and measurement of recognition; lacks industry-specific guidance.	Revenues are likely to increase with less detailed guidance.
Contingencies	Contingent liabilities must be disclosed.	Can limit disclosure of contingent liabilities if severely prejudicial to an entity's position.	May result in fewer disclosures.
Research & Development	R&D costs must be expensed	Allows capitalization of R&D costs.	Development costs will be deferred and amortized.
Securitization	Allows certain securitized assets and liabilities to remain off a corporation's books.	IFRS requires most securitized assets and liabilities to be placed on the balance sheet.	May result in very different balance sheet values.
Depreciation	Methods allowed: straight-line, units of production, or accelerated methods (sum of digits or declining balance). Component depreciation allowed but not commonly used.	Allows straight-line, units of production, and both accelerated methods. Component depreciation required when asset components have different benefit patterns.	Assets with different components will have differing depreciation schedules, which may increase or decrease assets and revenue.

Source: New York Society of Security Analysts (NYSSA), 2010